D.T.E. 99-118

Petition of the Attorney General of the Commonwealth of Massachusetts, pursuant to General Laws Chapter 164, § 93, for an investigation of the electric distribution rates of Fitchburg Gas and Electric Light Company.

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I. <u>INTRODUCTION</u>

A. Procedural History

The Attorney General of the Commonwealth of Massachusetts ("Attorney General") filed a written complaint ("Petition") with the Department of Telecommunications and Energy ("Department") regarding the price of the electricity sold and delivered by Fitchburg Gas and Electric Light Company ("Fitchburg" or "Company") pursuant to G.L. c. 164, § 93¹ ("Section 93"). The Attorney General requested that the Department conduct an investigation into Fitchburg's 1999 electric distribution rates, rate of return, and depreciation accrual rates (Petition at 5). This matter was docketed as D.T.E. 99-118.

After notice, the Department conducted a public hearing in the Company's service territory on December 14, 2000. On December 15, 2000, Boston Edison Company, Cambridge Electric Light Company, and Commonwealth Electric Company, d/b/a NSTAR Electric ("NSTAR"), filed a petition requesting limited participant status pursuant to 220 C.M.R. § 1.03. The petition was granted. A procedural conference was held on December 19, 2000.

General Laws c. 164, § 93 states in, pertinent part:

On written complaint of the [A]ttorney [G]eneral, . . . as to the quality or price of the gas or electricity sold and delivered, the [D]epartment shall notify said company by leaving at its office a copy of such compliant, and shall thereupon, after notice, give a public hearing to such complaint and said company, and after such hearing may order any reduction or change in the price or prices of gas or electricity. . . .

On January 18, 2001, Fitchburg filed a motion requesting that the Department define the scope of this proceeding ("Scope Motion"). On January 25, 2001, the Attorney General filed an opposition to the Scope Motion. On March 13, 2001, the Department issued an Interlocutory Order on the Scope Motion, specifying that the investigation of Fitchburg's electric distribution rates would be for calendar year 1999. Fitchburg Gas and Electric Light Company, D.T.E. 99-118, at 11 (2001) ("Scope Order").

Evidentiary hearings were held on May 30, 2001, and June 1, 2001. The Company sponsored the testimony of two witnesses: Mark Collin, Treasurer of Fitchburg and Treasurer and Secretary of Unitil Corporation ("Unitil")² and Dr. Samuel Hadaway, principal in the financial consulting firm, FINANCO, Inc. The Attorney General sponsored the testimony of David J. Effron, certified public accountant specializing in utility regulation. Fitchburg and the Attorney General filed briefs and reply briefs.

B. <u>Procedural Rulings</u>

We first address the outstanding procedural matter of Fitchburg's Motion to Dismiss ("Motion to Dismiss") filed on January 16, 2001. The Attorney General filed an opposition to the Company's motion on January 22, 2001 ("Opposition").

Fitchburg is a wholly-owned subsidiary of Unitil, a holding company that also owns two New Hampshire electric companies: Concord Electric Company and Exeter & Hampton Electric Company. In addition, Unitil owns Unitil Power Corporation, Unitil Resources, Unitil Service Corporation, and Unitil Realty Corporation (Exh. AG 1-2 Supp. Att. 1, at 2).

1. <u>Motion to Dismiss</u>

a. <u>Positions of the Parties</u>

i. <u>The Company</u>

The Company requests that the Department dismiss the Attorney General's Petition because the Attorney General has failed to plead a factual case that the Company's distribution rates for electric operations are unjust and unreasonable (Motion to Dismiss at 6). In support, the Company argues that the Attorney General's Petition did not adequately address the issues of the prospective nature of rates, burden of proof, and the appropriate rate of return (id. at 11-15). Fitchburg also argues that, because the Company is no longer engaged in the generation, supply, and sale of electricity (i.e., Fitchburg's earnings are no longer tied to the "price of electricity"), and since the Attorney General did not address the price of electricity in his Petition, the Attorney has failed to state a claim for which relief may be granted under G.L. c. 164, § 93 (id. at 15-17).

ii. The Attorney General

The Attorney General asserts that the Department should deny the Company's Motion to Dismiss because there is no requirement in G.L. c. 164, § 93 that the Attorney General must plead and prove in the initial complaint all the issues applicable in a Section 93 complaint (Opposition at 5-6). The Attorney argues that, from the facts alleged in his complaint, it can reasonably be inferred that ratepayers are entitled to rate relief (id. at 6). Further, the Attorney General argues that G.L. c. 164, § 93 has always applied to any aspect of a company's operations that has led to unreasonable prices for electricity sold and delivered and that the only reasonable interpretation is to continue to apply G.L. c. 164, § 93 to those activities over which the Department has retained jurisdiction (id. at 9).

b. Standard of Review

A Department procedural rule, 220 C.M.R. § 1.06(6)(e), authorizes a party to move for dismissal as to all issues or any issue in a case at any time after the filing of an initial pleading. The Department's current standard for ruling on a motion to dismiss for failure to state a claim upon which relief can be granted was articulated in <u>Riverside Steam & Electric Company</u>, D.P.U. 88-123, at 26-27 (1988). In <u>Riverside</u>, the Department denied the respondent's motion to dismiss, finding that it did not appear beyond doubt that the petitioner could prove no set of facts in support of its petition. D.P.U. 88-123, at 26-27.

In determining whether to grant a motion to dismiss, the Department takes the assertions of fact as true and construes them in favor of the non-moving party. <u>Id.</u> Dismissal will be granted by the Department if it appears that the non-moving party would be entitled to no relief under any statement of facts that could be proven in support of its claim.

Procedures for dismissal and summary judgment properly can be applied by an administrative agency where the pleadings and filings conclusively show that the absence of a hearing could not affect the decision. Massachusetts Outdoor Advertising Counsel v. Outdoor Advertising Board, 9 Mass. App. Ct. 775, 783-786 (1980); Hess and Clark, Div. of Rhodia, Inc. v. Food and Drug Administration, 495 F. 2d 975, 985 (D.C. Cir. 1974).

Although <u>Riverside</u> refers to Massachusetts Rule of Civil Procedure 12(b)(6), the Department has not adopted formally Rule 12(b)(6). <u>See Attorney General v. Department of Public Utilities</u>, 390 Mass. 208, 212-213 (1983) (rules of court do not govern procedure in executive department).

c. <u>Analysis and Findings</u>

To properly institute a proceeding under G.L. c. 164, § 93, the Attorney General must file a written complaint with the Department either as to the quality or price of the gas or electricity sold and delivered. Additionally, pursuant to 220 C.M.R. § 1.04(1)(b), a complainant must provide certain information (e.g., a clear and concise statement of the facts upon which the pleading is maintained, a reference to the statute under which relief is sought, and a statement setting forth the relief sought). Here, the Attorney General has set forth sufficient facts in his complaint asserting that the Company's electric distribution rates are excessive, in the form of financial information from Fitchburg's annual returns for the years 1997 and 1998. Therefore, the Attorney General's complaint has been properly pled under both G.L. c. 164, § 93, and 220 C.M.R. § 1.04(1)(b). Once a price-related issue is properly raised by a Section 93 complaint, the Department is compelled by statute to give appropriate notice, hold a public hearing, and order any suitable change in the price of gas or electricity.

We are not persuaded by the Company's argument that, because Fitchburg's earnings are no longer tied to the "price of electricity," and because the Attorney General's complaint does not specifically address the "price of electricity," the complaint fails to state a claim for which relief may be granted (Motion to Dismiss at 15). Section 93 states, in pertinent part, that a complaint may be filed "as to the quality or price of the gas or electricity sold and *delivered* (emphasis added)." G.L. c. 164, § 93. Because a Section 93 complaint applies to a company's operations relating to an alleged unreasonable price of electricity sold and delivered (e.g., the unbundled rates that Fitchburg charges for distribution service), we find that the Attorney General has stated a claim for which relief can be granted. Therefore, Fitchburg's Motion to

Dismiss must be denied. To dismiss would be effectively to gut Section 93 and render it a nullity.

C. <u>Burden of Proof</u>

1. Positions of the Parties

a. <u>Attorney General</u>

The Attorney General contends that long-standing evidentiary rules dictate that when a party submits a <u>prima facie</u> case regarding a Company's over-earnings, the burden of production shifts to the Company to produce evidence necessary to rebut the <u>prima facie</u> case (Attorney General Brief at 4, <u>citing Pahigian v. Manufacturers' Life Insurance Company</u>, 349 Mass. 78, 85 (1965); <u>Ford Motor Company v. Barrett</u>, 403 Mass. 240, 243 (1988)). While the Attorney General acknowledges that he has the burden to prove his case, he states that once he has put forth a <u>prima facie</u> case, his burden of proof has been satisfied (Attorney General Brief at 4-5, Attorney General Reply Brief at 2-3).

b. <u>The Company</u>

Fitchburg argues that the Attorney General has the burden of proof in this proceeding and must demonstrate, through substantial evidence, that Fitchburg's rates are not just and reasonable at the present level currently established (Fitchburg Brief at 6). The Company states that the burden of proof does not shift, but remains with the Attorney General throughout the entire proceeding (id.). Fitchburg contends that, just as utilities bear the complete burden of demonstrating each element of a requested rate increase, the Attorney General bears the complete burden on all of the elements necessary to justify a rate decrease (Fitchburg Reply Brief at 4, citing Fryer v. D.P.U., 374 Mass. 690 (1978) (complaining party must establish substantial evidence to prove new rates)).

2. <u>Analysis and Findings</u>

Before we turn to the substantive issues in this case, we must address which party bears the burden of proof⁵ in this proceeding. The burden of proof is the duty imposed upon a proponent of a fact whose case requires proof of that fact to persuade the factfinder that the fact exists or, where a demonstration of non-existence is required, to persuade the factfinder of the non-existence of that fact.⁶ Section 93 is silent on the issue of which party bears the burden of proof, but the Supreme Judicial Court has stated in relation to a Section 93 petition that "where a reduction or other adjustment is sought in an existing rate which has been approved for general application, the party seeking the benefit of such an adjustment has the burden of proving that the existing rate should be changed." Metropolitan District Commission v.

D.P.U., 352 Mass. 18, 25 (1967). Specifically, the Court stated:

Certainly as a practical matter a utility should not, in the absence of explicit legislative direction, be required to embark upon a full dress justification of its rate structure every time an individual customer filed a complaint...[I]n complaint proceedings the burden is upon the complainant to show that existing rates are unreasonable or discriminatory.

Although not disputed by the parties, it bears noting that proof by the preponderance of the evidence is the standard of proof generally applicable to administrative proceedings. When reviewing a Department decision, the Supreme Judicial Court will apply the "substantial evidence standard" which is "such evidence as a reasonable mind might accept as adequate to support a conclusion." Salisbury Water Supply Co. v. D.P.U., 344 Mass 716, 718 (1962), citing G.L. c. 30A § 1(6). See P. Liacos, Handbook of Massachusetts Evidence, § 5.2.6 (6th ed. 1994). There is a related obligation to weigh all of the evidence, not just the evidence that supports the conclusion reached, but also contrary evidence that derogates from that conclusion. Hingham v. D.T.E., 433 Mass. 198, 215 (2001).

A. Cella, <u>Administrative Law and Practice</u>, Massachusetts Practice Series, Vol. 38 § 276.

<u>Id.</u> at 25, <u>citing Antioch Milling Co. v. Pub. Serv. Co. of No. Ill.</u>, 4 Ill.2nd 200, 209 (1954). It is clear that the Attorney General bears the initial burden of proof, but the Attorney General argues that he has presented a <u>prima facie</u> case as to Fitchburg's over-earnings and that his burden of proof under the statute has been satisfied (Attorney General Brief at 4-5).

The concept of <u>prima facie</u> evidence gives conclusive effect to the proof of specified facts unless rebutted. Both of the two cases that the Attorney General relies upon to assert that he has submitted a <u>prima facie</u> case both involve statutes specifying that the evidence in the proceeding is afforded <u>prima facie</u> treatment. See e.g., <u>Pahigian v. Manufacturers' Life Insurance Company</u>, 349 Mass. 78, 85 (1965) (public records relative to a birth, marriage or death shall be <u>prima facie</u> evidence of the facts recorded under G.L. c. 46, § 19) and <u>Ford Motor Company v. Barrett</u>, 403 Mass. 240, 243 (1988) (G.L. c. 90, § 7N_{1/2} (6) specifies that findings by arbitrator must be taken as <u>prima facie</u> evidence in any subsequent action).

Statutory enactments may be phrased to create <u>prima facie</u> evidence. Section 93, however, does not contain such statutory language.

Under Massachusetts law, the burden of proof is distinguishable from the burden of production. The burden of production is concerned with the necessity of introducing evidence

See P. Liacos, <u>Handbook Of Massachusetts Evidence</u>, § 5.8.3 (6th ed. 1994).

⁸ See P. Liacos, <u>Handbook Of Massachusetts Evidence</u>, § 5.8.5, n.1 (6th ed. 1994).

Section 93 is, in any event, curiously terse, leaving much to be filled in by practice and case law, guided by an overall view of Chapter 164 and due process. For example, the Department may on its own motion do what the Attorney General or municipal officials can under Section 93, but few would suggest that the Department bears a burden of proof or production in a Section 93 enquiry into price or service quality. The section is general, almost to the point of being sketchy, on its face.

in order to avoid an adverse finding.¹⁰ Unlike the burden of proof, which does not shift during the proceeding, the burden of production shifts to the Company to produce evidence necessary to rebut the allegations raised against it.¹¹ Here, the Attorney General initially bore the burden of production relative to his allegation of over-earnings of the Company's electric distribution rates. Fitchburg then responded to refute the Attorney General's evidence by introducing into the record prefiled testimony, exhibits, and the testimony of two witnesses.

The Department must now determine which elements of the Attorney General's position or Fitchburg's position are supported by the record (i.e., whether there is substantial evidence on which the Department may base a conclusion). If, based on the record as a whole, the Department finds that there is sufficient evidence demonstrating that the Company's rates are unreasonable, then the Department may order a reduction or change in Fitchburg's price of electricity.

II. STANDARD OF REVIEW FOR SECTION 93 PETITION

In our earlier Scope Order, we recognized that there is little recent precedent for a Section 93 investigation. Scope Order at 4. Although a Section 93 earnings investigation is not a rate case pursuant to G.L. c. 164, § 94 ("Section 94"), and proceedings under these two sections should not be confused or conflated, certain aspects of the Department's investigation may resemble customary rate case practice because the techniques of rate analysis applied in Section 94 investigations are a recognized and familiar basis for examining a utility's revenues,

A. Cella, <u>Administrative Law and Practice</u>, Massachusetts Practice Series, Vol. 38, § 277.

[&]quot;The party that would not reasonably be expected to prevail on the current state of the evidence is generally the party who has the burden of producing, or of going forward." Id.

expenses, and investments. See NYNEX Price Cap, D.P.U. 94-50, at 39 (1995). However, the issues that may be raised in a Section 93 petition are broader in scope, and may include a wide range of issues concerning rates and quality of service. This range of potential issues justifies the use of various investigative approaches to reach findings on the issues under consideration. See Cape and Vineyard Electric Company, D.P.U. 17257 (1972); Fitchburg Gas and Electric Light Company, D.P.U. 17018 (1972). Therefore, while customary rate case concepts and practices may be useful and applicable, the Department is not bound by the requirements of a Section 94 rate case when conducting a Section 93 earnings investigation. By way of analogy, Sections 93 and 94 may be of related regulatory genera or even of the same genus, they are not of the same species. Shared purposes or characteristics do not establish identity. Their legislative history suggests distinguishable, even if related, purposes.

If the Department were to determine that the Company is over-earning or had service-quality problems, Section 93 grants the Department authority to order any reduction or change in the price or prices of gas and electricity or improvements in service quality.

Assuming a finding of excessive rates, the Department has considerable discretion as to the implementation of the appropriate remedy, taking into account the underlying facts. For example, the Department may authorize an across-the-board rate decrease, or eliminate the revenue surplus through selective rate adjustments determined by the record evidence. Tax Reform Act, D.P.U. 87-21-A at 21-22 (1987); Lynn Gas and Electric Company, D.P.U. 8390, at 6 (1949); Millbury Water Company, D.P.U. 5244, at 2-3 (1936).

For example, in <u>Lynn Gas and Electric Company</u>, D.P.U. 8390, at 5-6 (1949), the Department confined its Section 93 investigation to a review of that company's revenues, payroll expense, and property taxes to establish a return on rate base for both gas and electric operations.

III. <u>SELECTION OF TEST YEAR</u>

A. Introduction

The Attorney General requested that the Department investigate the Company's distribution rates for 1999. Petition at 5. In the Scope Order, we stated that the use of a calendar test year is the most effective means to conduct a Section 93 investigation. Scope Order at 8. Although we determined that 1999 was the appropriate test year, the Department also stated that information for 2000 may, to the extent it is reasonably available during the proceeding, be relevant to our consideration of any appropriate reduction or change in the Company's rates, as guided by the Department's long-standing ratemaking precedent. <u>Id.</u> at 8-10.

B. <u>Positions of the Parties</u>

1. Attorney General

The Attorney General argues that, while he has complied with Department directives designating 1999 as the test year, Fitchburg instead relied primarily on 2000 as its preferred test year for this investigation (Attorney General Brief at 7). The Attorney General states that 2000 data are only relevant to the extent that they allow the development of pro forma adjustments consistent with Department precedent (id. at 8, citing Fitchburg Gas and Electric Light Company, D.T.E. 98-51, at 61-62 (1998) (only adjustments to test year expenses for known and measurable adjustments are permitted). Beyond this purpose, the Attorney General requests that the Department disregard the Company's testimony concerning 2000 data as beyond the scope of this proceeding (id.).

2. The Company

Fitchburg acknowledges that it has presented both a 1999 and a 2000 test year revenue requirement analysis (Fitchburg Brief at 15, citing Exh. FGE-2, at 43-44). The Company states that it presented such information in response to the Department's Scope Order (id.). However, the Company contends that use of a calendar year 2000 test year provides information most consistent with the Department's preference to review rates using the most recent available information (Fitchburg Reply Brief at 6).

C. <u>Analysis and Findings</u>

At the start of this investigation, the most recent year for which complete financial data were readily available was 1999. Scope Order at 8. Test year 1999 data were readily available, but more recent financial information for 2000 would not have been available for several months. <u>Id</u>. To rely on 2000 as a test year would have caused an unreasonable delay in the Department's investigation. With respect to 2000 information, the Department stated:

While the focus of our earnings investigation is on calendar year 1999, information for year 2000 may, to the extent it is reasonably available during the proceeding, be relevant to the Department's consideration of any appropriate reduction or change in the Company's rates, as guided by our longstanding ratemaking precedent.

Id. at 10.

In addition to timing concerns, we found that test year 1999 data fully considered that Fitchburg is now a distribution company. <u>Id.</u> at 8. The Department determined that the

Company's distribution earnings for 1999 constituted an accurate indication of the magnitude of earnings that Fitchburg can expect to achieve on a going-forward basis.¹³ <u>Id</u>.

Based on the findings in our Scope Order, the Attorney General filed testimony, presented evidence, and based his resulting revenue requirement recommendation on a 1999 calendar year. Pursuant to the Scope Order, Fitchburg also presented evidence for the 1999 test year revenue requirements analysis, but also provided a 2000 test year revenue requirement analysis (Exh. FGE-2, at 43-44). Consistent with the Scope Order, while the Department will consider certain information for the year 2000 that is relevant to determine what adjustments should be made to the 1999 test year revenues, our investigation relies primarily on a 1999 test year.

IV. REVENUES

In order to determine whether Fitchburg's current electric rates are just and reasonable, we must consider several proposed adjustments to the Company's test year revenues. These proposals, dealing with changes in the number of customers as well as the annualization of customer growth, are addressed below.

A. <u>Princeton Paper</u>

1. Introduction

Moreover, the information provided by Fitchburg indicates that little overall difference would result between the use of a 1999 test year and use of a 2000 test year (Exh. FGE-2, 1999 Sch. MHC-Supp-1, 2000 Sch. MHC-Supp 1).

The Company proposes to reduce its test year revenues by \$1,296,673 to remove all revenues related to Princeton Paper Company, LLC ("Princeton Paper") (Exh. FGE-2, 1999 Sch. MHC Supp-7, at 2). The Attorney General opposes this reduction, and instead proposes no change in the Company's test year revenues to account for the loss of Princeton Paper.

In 1998, Fitchburg entered in to a special contract with Princeton Paper, the successor to another customer who declared bankruptcy that year (Exh. FGE-1, at 11-12). ¹⁴ In 1999, Princeton Paper had a load of about 16,341 kilovolt-amperes ("kVa"), and contributed 29.2 percent of the Company's test year electric industrial class operating revenues and 8.4 percent of its total base electric distribution operating revenues (Exhs. FGE-1, at 20; FGE-2, at 24, 1999 Sch. MHC Supp-7, at 2). In July of 1999, Princeton Paper went bankrupt; and its facilities were acquired by the Newark Group ("Newark"), which in turn sold off the major portion of Princeton Paper's machinery and stock (Exh. FGE-1, at 20; Tr. 2, at 296). Princeton Paper's special contract was assumed by Newark until its expiration on April 30, 2000, whereupon Newark's electric service was transferred to Fitchburg's G-3 rate (Exh. FGE-1, at 20, n.1). ¹⁵ Between July 2000 and February 2001, Newark's average monthly billed demand was 648 kVa, or less than four percent of the former load of Princeton Paper (Exhs. FGE-1, at 21; AG 3-12).

The contract included a minimum demand provision for a de-inking facility of 9,000 kilowatts ("kW"), and a minimum demand for paper-making operations of 3,000 kW under the Company's Energy Bank Service Agreement (Exh. FGE-2, at 24-25). Approximately 96 percent of the Company's test year distribution base revenues associated with the special contract, and approximately 99 percent of test year distribution base revenues associated with the Energy Bank Service Agreement, were derived from these fixed demand provisions (Exh. AG 3-10).

Under the special contract, Fitchburg continued to receive demand charge revenues from Newark despite the decrease in consumption (Tr. 1, at 119-120).

Although Newark plans to install some new paper-making equipment, these facilities are not expected to be operational until, at the earliest, the first half of 2002 (Exh. FGE-2, at 27). In addition, Newark may be considering self-generation for a portion of its load (Exh. FGE-2, at 27; Tr. 1, at 112-113).

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General contends that the loss in sales associated with Princeton Paper has been more than offset by a new customer at the same site, as well as the sales growth from other Fitchburg customers (Attorney General Brief at 11). Specifically, the Attorney General argues that Fitchburg's proposed adjustment for Princeton Paper fails to recognize the sales to Newark (id.). The Attorney General points to statements contained in Unitil's Securities Exchange Commission Form 10-Q concerning Newark's acquisition of the former Princeton Paper facilities as belying the Company's claim that Newark would not substantially replace the Princeton Paper load (Attorney General Brief at 11-12, citing Exh. AG 1-3, Supp. at 47). In addition, the Attorney General argues that, while the Company proposes to decrease test year revenues for the loss of one customer, it has failed to recognize the addition of other large customers (id. at 12). As an example of a large new customer with planned expansion, the Attorney General cites a regional water filtration facility constructed by the City of Fitchburg (id. at 13, citing Tr. 2, at 307). The Attorney General argues that, based on the Company's most recent sales forecasts for residential and commercial load, Fitchburg's total kilowatt-hour ("kWh") sales will be higher in upcoming years than they were during 1999, even with the loss of Princeton Paper (Attorney General Brief at 13, citing Tr. 1, at 119, 122-123; Attorney General Reply Brief at 6-7, citing 1999 and 2000 Fitchburg FERC Forms 1, at 304).

b. <u>The Company</u>

Fitchburg maintains that the loss of Princeton Paper as a customer is extraordinary and has an adverse effect on the Company's operations (Fitchburg Brief at 17-18). The Company argues that, based on information provided by Newark, the replacement load will only be a fraction of the load formerly provided by Princeton Paper, including a decrease of 96 percent in demand charge revenues (Fitchburg Brief at 18; Fitchburg Reply Brief at 8). The Company states that once Newark installs its paper equipment (and assuming Newark does not implement its plan to move towards self generation for approximately half of its load), the net loss of load is expected is to be between 7.4 and 9.9 megawatts ("MW") (Fitchburg Brief at 18-19, citing Exh. FGE-2, at 27). Fitchburg argues that while Newark would be a large customer, neither it nor any other customers will come close to replacing the revenues and special contract arrangements that the Company received from Princeton Paper (id. at 20, citing Exh. FGE-2, at 28; Tr. 2, at 247-249; Fitchburg Reply Brief at 7-8). The Company maintains that the reduction in revenues accounting for the loss of Princeton Paper is a known and measurable change to the test year revenues for 1999 and 2000 and that a pro forma adjustment for these reductions in revenues is appropriate (Fitchburg Brief at 20).

3. Analysis and Findings

The Department seeks to include in rates the likely cost of providing the same level of service as was provided in the test year. <u>Boston Gas Company</u>, D.P.U. 88-67 (Phase I) at 140 (1988). Therefore, we typically decline to adjust test year revenues for post-test year changes

Fitchburg argues that the nature of its former contractual arrangement with Princeton Paper, including a fixed demand provision, renders a per kWh measure of the financial effects of the loss meaningless (Fitchburg Reply Brief at 8-9, <u>citing Exhs. AG 3-4; AG 3-5; AG 3-10; FGE-2</u>, at 23-26).

that fall within the normal "ebb and flow" of customers. Western Massachusetts Electric Company, D.P.U. 85-270, at 70-72 (1986); Bay State Gas Company, D.P.U. 1122, at 46-49 (1982). However, if the addition or deletion of a customer or change in customer consumption, either during or after the test year, represents a known and measurable change to test year revenues, and constitutes a significant adjustment outside of the "ebb and flow" of customers, then the Department may include a representative level of sales for purposes of deriving a utility's revenue requirement. Massachusetts-American Water Company, D.P.U. 88-172, at 7-9 (1989); D.P.U. 1122, at 46-49 (1982); Western Massachusetts Electric Company, D.P.U. 558, at 70-72 (1981).

While the Company's total kWh sales increased between 1999 and 2000, the demand provisions contained in both the special contract and the Energy Bank Service agreement with Princeton Paper resulted in nearly all of the Company's test year distribution base revenues associated with this customer being derived from demand charges (Exhs. AG 3-4; AG 3-5; AG 3-9, at 2; AG 3-10; Tr. 1, at 120-121). Consequently, in the case of a customer, such as Princeton Paper, whose sales are primarily determined by demand charges, a comparison of kWh sales from one year to the next would not demonstrate the full effect of the addition or loss of that customer. Therefore, the Attorney General's proposed kWh sales analysis provides an insufficient basis to assess the effect of the loss of revenues from Princeton Paper on the Company's operations. Cf. D.P.U. 85-270, at 178 (increased sales absorbed potential loss of large industrial customer in less than two months).

Instead, Fitchburg has demonstrated that the loss of sales to Princeton Paper has had a significant effect on the Company's revenues. Test year sales to Princeton Paper represented 29.2 percent of the Company's electric industrial class operating revenues and 8.4 percent of

total base electric distribution operating revenues (Exh. FGE-2, 1999 Sch. MHC Supp-7, at 2). Moreover, Princeton Paper's load of 18 MW represented a significant portion of the Company's total demand of 90 MW (Tr. 1, at 120). Twenty percent of load is significant to any reasonable observer. Therefore, because the loss of Princeton Paper is a known and measurable change that constitutes a significant adjustment outside the "ebb and flow" of customers, the Department will adjust the Company's test year sales to account for the loss of Princeton Paper.

Turning to the amount or measure of the Princeton Paper adjustment, the Attorney General contends that projected sales to other new, large customers will at least partially offset the Company's revenue loss. The Attorney General references a proposed water treatment plant project as one means of offsetting the Princeton Paper loss. However, the treatment plant has not yet been constructed (Tr. 2, at 274-275, 306). Moreover, the evidence indicates that the primary purpose of the treatment plant will be to support the expansion of the paper industry in the City of Fitchburg. This expansion can be called into question in light of the recent downturn in the local and national economies, as well as declining industrial production in the region (Tr. 1, at 113-114, 117; Tr. 2, at 275). The Attorney General's reliance on these projected future events does not provide a sufficient basis for the proposed adjustment.

Milford Water Company, D.P.U. 92-101, at 25 (1992). As the Attorney General's proposed adjustment is neither a known and measurable change, nor a significant adjustment outside the

Even if the treatment facility is ultimately constructed, the incremental load associated with the customer would be less than one MW and would replace only a small portion of the lost revenues associated with Princeton Paper (Tr. 2, at 275, 305-306).

normal "ebb and flow" of customers, we decline to adjust the test year sales to account for revenues from the proposed water treatment plant or other projected future growth.

The Attorney General also contends that Fitchburg's sales to Newark should partially offset any Princeton Paper revenue loss. We agree. When calculating the adjustment to test year sales to account for the loss of Princeton Paper, we find that it is necessary and appropriate to account for the revenues associated with Newark. Assuming, hypothetically, that Newark was a new customer with no relationship to Princeton Paper, its present monthly demand of approximately 600 kW¹⁸ may not be sufficient to place it outside of the normal "ebb and flow" of customers. However, we do not consider the proposed Newark adjustment as a stand-alone adjustment to Fitchburg's test year revenues. Instead, because Newark purchased the Princeton Paper facility and retooled it to commence operations at the same site, the sales to Newark mitigate any loss of revenues associated with Princeton Paper. The loss of Princeton Paper and gain of Newark are sufficiently related that we cannot accept the one and exclude the other. The net effect of both needs to be reckoned in our calculus. Therefore, we find that any adjustment to the Company's test year sales to account for the loss of Princeton Paper must be reduced to account for the ongoing revenues from Newark.

It is therefore necessary to include a representative level of revenues attributable to Newark in Fitchburg's cost of service. For the eight months between June 23, 2000 and February 25, 2001, the Company billed Newark \$52,387 in base distribution rates (Exh.

We note that the Company has acknowledged that Newark represents a "large customer by [Fitchburg's] standards" (Fitchburg Reply Brief at 7). Whether the addition or deletion of customers or a change in customer consumption constitutes a significant adjustment outside of the normal "ebb and flow" is a concept of relevance and cannot be determined by looking at changes in load alone. <u>See D.P.U. 88-172</u>, at 7-9; <u>see also D.P.U. 85-270</u>, at 175-176; D.P.U. 558, at 70-72.

AG 3-11). Because Newark remains in operation and would operate on a year-round basis, the Department finds that the reported base distribution revenues are not representative of the level of revenues that can be expected in the future. Based on the \$52,387 in base distribution revenues over an eight-month period, the annualized base distribution revenues from Newark are \$78,581.¹⁹ Accordingly, the Department will adjust the revenue loss from Princeton Paper of \$1,296,673, by \$78,581 in annualized Newark-related revenues, producing a net decrease to the Company's test year revenues of \$1,218,092.

B. <u>Annualization of Customer Growth</u>

1. <u>Introduction</u>

The Attorney General proposes to increase the Company's test year revenues by \$190,000 to recognize the annualization of revenues from customers who were added during the test year. The Company opposes this increase and instead proposes no adjustment in test year revenues.

 $^{((\$52,387 \}div 8 \text{ months}) \times 12 \text{ months}).$

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General proposes to annualize revenues to indicate the end-of-year number of Fitchburg's customers, arguing that this is consistent with the use of an end-of-year rate base and the inclusion of end-of-year expenses in the cost of service (Attorney General Brief at 10). The Attorney General argues that that the Company's revenues must be annualized in order to recognize the incremental revenue that would be generated by customers being served as of the end of the test year (id. at 9). The Attorney General claims that a revenue annualization adjustment is appropriate as a matter of consistency relating to cost of service and in order to demonstrate the revenue that the present rates will produce prospectively (id. at 10).

The Attorney General calculates this annualization adjustment as one half of the revenue growth from 1999 to 2000 (Exh. AG-2, at 3-4, exh. DJE-3, Sch. 2). The Attorney General maintains that the use of one-half year of revenue growth is a commonly used convention to show the difference between revenue produced by year-end and revenue produced by test year average customers, based on the premise that the difference between the year-end and average customers approximates one-half the difference between the beginning and year-end number of customers (Attorney General Reply Brief at 8-9). The Attorney General's proposed annualization to incorporate the end-of-year number customers increases the Company's test year revenues by \$192,000 (Attorney General Brief at 10, citing Exh. AG-2, at exh. DJE-3, Sch. 2).

b. <u>The Company</u>

The Company disputes the Attorney General's proposed adjustment and, instead, argues that it is both calculated incorrectly and contrary to Department ratemaking precedent (Fitchburg Reply Brief at 9-10). Despite his assertions to the contrary, Fitchburg states that the Attorney General's revenue annualization adjustment calculations do not use test year-end number of customers (id. at 10). Instead, the Company states that the Attorney General has computed a simple average of total distribution revenues (excluding Princeton Paper) experienced during the 1999 and 2000 calendar years, crossing over two separate test years (id.). The Company argues that there is no Department precedent for the Attorney General's calculations and that the Attorney General has failed to demonstrate any substantive support for his revenue averaging method (id.). The Company requests that the Department reject the Attorney General's method of computing the number of customers from which a test year average revenue calculation is derived (id.).

3. Analysis and Findings

The Department does not regularly recognize the annualization of revenues from customers who are added during the test year. Dedham Water Company, D.P.U. 1217, at 7-9 (1983). Revenue adjustments of this nature would require a number of corresponding adjustments to expenses, and could disrupt the relation of test year revenues to test year expenses. New England Telephone and Telegraph Company, D.P.U. 86-33-G at 322-327 (1989). A revenue adjustment without recognition of corresponding expenses would not be equitable; and combining revenue adjustments with expense adjustments defeats the purpose of having a representative test year altogether. For these reasons, we will not adjust the Company's test year revenues to account for end-of-year number of customers.

V. <u>RATE BASE</u>

In order to determine whether Fitchburg's current electric rates are just and reasonable, we must also consider several proposed adjustments to the Company's rate base. Proposed adjustments concerning the Princeton Paper transformer, materials and supplies, the cash working capital allowance, and deferred income taxes are discussed below.

A. <u>Princeton Paper Transformer</u>

1. <u>Introduction</u>

In 1999, the Company placed in service a distribution transformer dedicated to serving Princeton Paper (Exh. AG-5-13, Att. at 1, 12; Tr.1, at 125). As Princeton Paper is no longer a customer, the Attorney General contends that this transformer should not be included in the Company's plant in service balance; the Company disputes this contention (Attorney General Brief at 14; Fitchburg Reply Brief at 10-11). The Attorney General proposes, in the event that the Department excludes the Princeton Paper revenues from the test year, to reduce the Company's rate base by \$875,184, representing the cost of the transformer, as well to eliminate \$27,043 from the Company's test year expenses to account for depreciation on the transformer (Attorney General Brief at 14). The Company opposes these reductions and, instead, proposes that no adjustment be made to rate base or expenses, related to the transformer (Fitchburg Reply Brief at 10-11).

2. <u>Positions of the Parties</u>

a. Attorney General

The Attorney General argues that if the Department eliminates the Princeton Paper revenues from the test year, then the cost of providing service to Princeton Paper should also be eliminated from the Company's revenue requirements (Attorney General Brief at 14).

Specifically, the Attorney General refers to a distribution transformer that was placed in service in 1999 and is dedicated to serving Princeton Paper (id.). The Attorney General argues that if Princeton Paper is not a customer, then the transformer is not "used and useful" in providing utility service (id.). As a result, the Attorney General states that the Company's rate base should be reduced by the cost of the transformer (\$875,184) and the depreciation on the transformer (\$27,043) should be eliminated from the Company's test year expenses (id.).

b. <u>The Company</u>

The Company argues that the transformer and related service facilities are used and useful in serving Princeton Paper's successor, Newark (Fitchburg Reply Brief at 10-11). Fitchburg also argues that Newark's operations are on-going and, therefore, the transformer will continue to be used and useful in the service of the Company's customers (id.).

3. <u>Analysis and Findings</u>

For costs to be included in rate base, the expenditures must be prudently incurred, and the resulting plant must be used and useful in providing service to ratepayers. Boston Gas Company, D.P.U. 93-60, at 42 (1993); D.P.U. 85-270, at 60-107 (1986). The Department has the authority to review plant previously included in rate base that is no longer used or useful, and has excluded plant that no longer met this standard. See e.g., D.P.U. 93-60, at 41-44 (1993) (removal of synthetic natural gas facility that had been partially dismantled by the company); D.P.U. 85-270, at 102-130 (1986) (portion of investment in nuclear plant excluded). While we found that the Princeton Paper revenues should be removed from the Company's test year revenues, we partially offset this reduction with the revenues generated by Newark, Princeton Paper's successor at the site. Although it is currently being used at a smaller capacity than it was originally designed to provide, the transformer at issue is still in

operation and is used to serve Newark. Therefore, because it remains used and useful in serving Fitchburg's customers we will not make any reductions to test year rate base or expenses to account for the transformer.

By declining to make these adjustments in the context of a Section 93 proceeding, however, we have taken no position on whether the Company's actions, based on all that it knew or should have known at the time that the transformer was installed, were reasonable and prudent in light of the circumstances which then existed. The Department will examine the prudence of this investment in the Company's next Section 94 rate case proceeding. See e.g., High Wood Water Company, D.P.U. 18243, at 2-3 (1975); Berkshire Gas Company, D.P.U. 92-210-B at 19-24 (1993); D.P.U. 93-60, at 14-36 (1993).

B. <u>Materials and Supplies</u>

1. Introduction

The Department's long-standing practice is to include a representative level of materials and supplies balance in a company's rate base, in order to compensate the utility for the carrying costs associated with its inventory. <u>Boston Edison Company</u>, D.P.U. 1991, at 16 (1979). The Company included a material and supply balance of \$559,094 in its rate base (Exh. FGE-2, 1999 Schs. MHC Supp-3, Supp-19). As part of his revenue requirement calculation, the Attorney General used a material and supply balance of \$530,000 (Exh. AG-2, exh. DJE-3, Sch. 4, at 1). Neither party addressed the discrepancy in proposed material and supply balances.

2. Analysis and Findings

As of the end of the test year, the Company's material and supply balance consisted of \$6,897 in production-related inventory, \$22,179 in transmission-related inventory, and

\$530,018 in distribution-related inventory (Exhs. FGE-2, 1999 Sch. MHC Supp-19; AG 2-6). It appears, therefore, that the Attorney General has excluded the material and supply balances for production and transmission related inventories from his revenue requirement calculations.

Both the Company and the Attorney General have focused their respective revenue requirement calculations on Fitchburg's distribution operations, versus production- or transmission-related functions (Exhs. FGE-2, 1999 Sch. MHC Supp-2; AG 1, at 3-5). The Company's generation-related materials and supplies are not related to Fitchburg's distribution operations. Therefore, for purposes of this proceeding, the Department will exclude \$6,897 in production-related materials and supplies from rate base.

With respect to Fitchburg's transmission-related inventory, its transmission functions are classified as both internal and external. Costs associated with both internal and external transmission are established by the Federal Energy Regulatory Commission ("FERC"), with recovery through a Department-approved internal transmission service cost adjustment ("ITSCA") and a Department-regulated external transmission cost charge ("ETC") mechanisms, respectively (Tr. 1, at 25, 96; Tr. 2, at 257-258; Fitchburg M.D.T.E.

Nos. 34 and 35). Because the Company's ITSCA and ETC mechanisms provide for recovery on a fully-reconciling basis, it is appropriate to remove all materials and supplies costs related to transmission service from rate base. Based on the above, the Department will

Internal transmission is represented by Company plant identified under guidelines prescribed by the Federal Energy Regulatory Commission as potentially able to provide service outside of Fitchburg's service territory (Tr. 2, at 257). External transmission refers to the transmission of bulk power into Fitchburg's service territory (Tr. 2, at 259).

The Company has removed all costs associated with internal transmission from its cost of service (Tr. 1, at 100-101).

exclude \$6,897 in production-related materials and supplies and \$22,179 in transmission related materials and supplies from the Company's test year rate base. As a result, the Department will include \$530,018 in distribution-related materials and supplies in the Company's test year rate base.

C. <u>Cash Working Capital Allowance</u>

1. Introduction

Companies require funds to pay for expenses incurred in the day-to-day course of business, including operating and maintenance ("O&M") expenses. These funds are provided either through funds generated internally by the Company or through short-term borrowing. The Department has found that a company is entitled to be reimbursed for the cost associated with the use of its funds or for the interest expense incurred on borrowing. D.P.U. 87-260, at 17. This reimbursement is accomplished by adding a working capital component to the company's rate base computation.

The parties propose different cash working capital allowances. The Attorney General proposes to assign lags of 6.8 days, 15 days and 35 days to various categories of O&M expenses (Exh. AG-2, at 10-12). The Company proposes a 45-day allowance for all categories of O&M expenses, except purchased power (Exh. FGE-2, at 18-21). For purchased power expense, both parties propose a 6.8-day lag (Exhs. AG-2, at 10; Tr. 1, at 103). In addition, both parties have agreed to remove the Company's expenses associated with the internal transmission function (including administrative and general expense related to the internal transmission function) from the calculation of the cash working capital allowance (Exhs. AG-2, at 10-12; FGE-2, at 19-20)

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General states that the 45-day lag proposed by Fitchburg overstates the lag days for the Company's expenses (Attorney General Brief at 16). The Attorney General maintains that a 35-day lag for wages and salaries and a 15-day lag for other O&M expenses are reasonable estimates of the lags between the Company's payment of expenses and its receipt of revenues (id. at 17). The Attorney General also states that, if external transmission expense is included in the cash working capital allowance, the lag assigned to this expense should be 6.8 days, the same as the lag assigned to purchased power expense, and not the 45 days used by the Company (id. at 18).

b. <u>The Company</u>

The Company disputes the Attorney General's proposal to shorten the lag days attributable to certain categories of its O&M expenses (Fitchburg Brief at 38). The Company relies on the traditional 45-day convention when assigning a lag for all O&M categories, except for purchased power expense, where the Company assigned a lag of 6.8 days (id.). The Company argues that that the Department should reject the Attorney General's proposal as the he did not conduct a lead-lag study (id.).

3. <u>Analysis and Findings</u>

In the absence of a lead-lag study, the Department has generally relied on a 45-day convention as reasonably representative of non-fuel O&M working capital requirements.

Boston Edison Company, D.P.U. 85-266-A/271-A at 24 (1986); AT&T Communications of New England, D.P.U. 85-137, at 22 (1985). However, we have expressed our concern that this convention, developed in the early part of the last century, may no longer provide a

reliable measure of a utility's working capital requirements. D.T.E. 98-51, at 15 (1998), citing Boston Gas Company, D.P.U. 96-50 (Phase I) at 27 (1996), D.P.U. 93-60, at 50 (1993).

In its last gas base rate proceeding, the Department directed Fitchburg "to propose an alternative to using the 45-day lag in its next rate proceeding or otherwise show that proposing an alternative would not be cost-effective." D.T.E. 98-51, at 16. Fitchburg did not undertake a lead-lag study for this proceeding, nor did it propose an alternative. The Attorney General also did not undertake a lead-lag study, but did propose alternative lags of 35 days for wages and salaries and 15 days for other O&M expenses. These alternative lags are not based on Fitchburg's experience. Instead, they are estimates based on the experience of the Attorney

In D.T.E. 98-51, the Department again encouraged utilities to "consider and offer cost-effective alternatives that produce lower working capital requirements than the 45-day convention." However, the Department also reiterated that it "does not wish to encourage the use of expensive lead-lag studies in rate proceedings." D.T.E. 98-51, at 15, citing D.P.U. 93-60, at 50.

General's expert witness, obtained over time after reviewing at least 50 lead-lag studies, most of which were "in years farther in the past as opposed to more recently" (Tr. 1, at 47-48, 59). Despite the Attorney General's expert testimony, the record does not contain sufficient evidence to allow us to determine if these proposed alternative lags are reasonable estimates of the actual lags between the Company's payment of expenses and receipt of revenues. In the absence of such evidence, we must rely on the 45-day convention. Therefore, for the purposes of calculating the Company's cash working capital allowance, we will use a lag of 6.8 days for purchased power expense and a lag of 45 days for all other O&M expense categories.

Finally, the Department accepts the parties' proposal to remove costs associated with Fitchburg's internal transmission function because they are not distribution-related costs. All costs related to the internal transmission function are reconciled within the Company's internal transmission function accounts. Therefore, we will remove costs related to the internal transmission function from the calculation of Fitchburg's cash working capital allowance.

Because the working capital allowance must incorporate the O&M expense level approved by this Order, the Company's working capital allowance is provided in the attached schedules.

Fitchburg is reminded of the Department's directives in D.T.E. 98-51, at 16, regarding its working capital allowance. In the Company's next Section 94 rate proceeding, (either gas or electric), the Company must conduct a lead-lag study or undertake a reasonable, cost-effective alternative to a lead-lag study in order to address the continued validity of the 45-day convention in Fitchburg's case or to propose a different interval.

D. Deferred Income Taxes

1. Introduction

Deferred income taxes accrue when a utility has a current deduction or credit for tax purposes, but not for book purposes. As of the end of the test year, Fitchburg had an accumulated deferred income tax reserve associated with electric operations of \$9,273,651, of which \$2,177,894 was associated with generation (Exh. FGE-6, 1999 Sch. MHC Supp-20). Because deferred income taxes represent a cost-free source of funds to the utility, they are treated as an offset to rate base. Essex County Gas Company, D.P.U. 87-59, at 63 (1987); D.P.U. 85-137, at 31 (1985); Boston Edison Company, D.P.U. 1350, at 42-43 (1983). As this investigation involves the Company's distribution operations, it is necessary to allocate the deferred income tax reserve so that only that portion of deferred income taxes associated with distribution operations are included in the revenue calculation.

In apportioning the deferred income tax reserve between the Company's transmission and distribution functions, the Attorney General allocated the reserve on the basis of net transmission plant in service as a percentage of total net transmission and distribution plant in service (Exh. AG-2, exh. DJE-3, Sch. 4, at 3). Employing this method, the Attorney General derived an allocation to distribution plant of 92.79 percent (id.). Using this allocation, the Attorney General initially proposed to use a deferred income tax balance of \$8,288,000 (id.). Based on the Company's revisions to its non-generation-related deferred income tax

Fitchburg initially estimated its non-generation-related deferred income tax balance as \$8,038,734 (Exh. FGE-2, 1999 Sch, MHC Supp-20). During the hearings, the Company identified two errors in its calculation of generation-related deferred income taxes, which reduced the non-generation-related deferred income tax balance to \$7,095,757 (Exh. FGE-6, Att. AG-RR-1, at 1; Tr. 2, at 286-288).

calculations, the Attorney General later revised his proposed deferred tax reserve to \$6,584,000 (Attorney General Brief, Att. 1, Sch. 4, at 3, <u>citing Exh. FGE-6</u>, at 11).

The Company proposed to allocate accumulated deferred income taxes between transmission and distribution based on gross plant (Exh. FGE-2, at 17). Using this allocation method, Fitchburg derived an allocation to distribution plant of 90.0 percent, resulting in a deferred income tax reserve associated with distribution operations of \$6,288,726 (Exh. FGE-6, 1999 Sch. MHC Supp-20).

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

According to the Attorney General, accumulated deferred income taxes represent the difference between the net book and net tax bases of plant, multiplied by the tax rate, thereby making deferred income taxes more closely related to net plant balances (Exh. AG-2, at 13). Therefore, the Attorney General argues that allocating accumulated deferred income taxes between transmission and distribution on the basis of net plant is a more accurate measure than the use of a gross plant allocator (Attorney General Brief at 19). Further, the Attorney General disputes the Company's claim that the net plant approach is inconsistent with FERC's allocation method (id. at 20, citing Exh. FGE-2 at 17; Tr. 1, at 96).

b. <u>The Company</u>

According to the Company, FERC uses a gross plant method to derive Fitchburg's internal transmission rates, and, to the extent that a net plant allocator is used at the distribution level, there would be a mismatch between costs that would result in either a double-collection or shortfall for the Company (Exh. FGE-2, at 17; Tr. 2, at 256-259). Instead, the Company maintains that a gross plant allocator is appropriate (Fitchburg Brief at 39). Fitchburg argues

that FERC derived Fitchburg's internal transmission rates using a gross plant allocator as the basis of allocating the deferred tax reserve to the internal transmission function (Fitchburg Reply Brief at 12, citing Exh. FGE-2, at 39; Tr. 1, at 96-97). Fitchburg states that, because FERC has previously recognized the appropriateness of the gross plant method, the Department should adopt a gross plant allocator for consistency and to prevent either a double-collection or an undercollection of costs (Fitchburg Brief at 39-40; Fitchburg Reply Brief at 13).

3. <u>Analysis and Findings</u>

Deferred income taxes arise because of differences between the tax and book treatment of certain transactions, including the use of accelerated depreciation for income tax purposes and the treatment of certain operating expenses for income tax purposes. D.P.U. 87-59, at 27 (1987). The majority of the Company's accumulated deferred income taxes arise from book-versus-tax depreciation differences and other differences related to the tax treatment of plant investment (Exhs. FGE-2, 1999 Sch. MHC Supp-20; FGE-6, Att. AG-RR-1-1, at 1). Therefore, the use of a plant allocation factor in order to assign deferred income taxes between transmission and distribution functions is appropriate.

With respect to the proper plant allocation factor to use, the Attorney General proposes to assign deferred income taxes using a net plant allocation method, while the Company proposes the use of a gross plant allocation method. Deferred income taxes associated with plant are calculated by subtracting the net book basis of these assets from the net tax basis and multiplying the difference by the income tax rate (Exh. AG-2, at 13). The Company acknowledges that the use of a net plant allocation method is a reasonable method for assigning deferred income taxes (Tr. 1, at 96-97).

Although Fitchburg claims that its proposed gross plant allocator is consistent with FERC's ratemaking practices and will avert problems with over- or under-recovery of deferred income taxes, the Department is not required to accept the ratemaking practices of other jurisdictions. D.P.U. 94-50, at 352 (1995); NET - Capital Recovery, D.P.U. 859, at 12-15 (1982). Although the Department is sympathetic to Fitchburg's concerns of over-or under-recovery, we are not persuaded on this record that FERC's gross plant allocation method is superior to one that is based on the actual cost incurrence of deferred income taxes, or that FERC's method does not produce cross-subsidies between transmission and distribution costs. The Department finds that the Attorney General's proposed allocation of deferred income taxes more accurately recognizes the nature and purpose of deferred income taxes. Accordingly, the Department will allocate the Company's deferred income taxes between transmission and distribution using a net plant allocation method. In doing so, the Department reserves the opportunity to reexamine this issue as part of Fitchburg's next base rate proceeding.

Application of a distribution plant allocator of 92.79 percent to Fitchburg's test year non-generation related deferred income taxes of \$7,095,757 produces an allocation to distribution plant of \$6,584,153. Accordingly, the Department will apply a deferred income tax balance of \$6,584,153 as an offset to rate base.

VI. <u>OPERATING EXPENSES</u>

The parties proposed a number of adjustments to the Company's test year operating expenses. While some proposed adjustments were uncontested, the parties raised several issues concerning Fitchburg's operating expenses. The following issues are addressed below: 1) bad debt expense, 2) rate case expense, 3) inflation allowance, 4) certain reclassified expenses, 5)

depreciation expense, 6) property taxes, 7) Financial Accounting Standard 109 ("FAS 109"), and 8) issues related to the Company's pending reconciliation proceeding.

A. <u>Bad Debt Expense</u>

1. Introduction

The Department permits a representative level of bad debt or uncollectible expense to be included in rates. During the test year, the Company booked \$154,741 in uncollectible expense (Exh. FGE-2, 1999 Sch. MHC Supp-10, at 1). The Attorney General proposes a pro forma increase of \$132,000 to test year bad debt expense using the most recent three years of net write-offs for the years 1998 through 2000 (Exh. AG-3; Tr. 1, at 7). The Company proposes to use a three-year period ending with the 1999 test year in order to calculate the bad debt expense (Exh. FGE-2, at 31, 1999 Sch. MHC Supp-10, at 1). In addition, the Company proposes to incorporate increases in standard offer service and default service prices into the test year revenue calculation (Exh. FGE-2, at 31-32, 1999 Sch. MHC Supp-10, at 1-2).

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General requests that the Department follow precedent to calculate the Company's bad debt expense by using the most recent three years of net write-offs (Attorney General Reply Brief at 9-10). The Attorney General disagrees with the Company's use of a three-year average net write-off ratio for the years 1997-1999 (id. at 10). The Attorney General states that net write-off expenses for 1997 are \$401,880, while the other years range between \$273,216 and \$292,805 (id. citing FGE-2, 1999 and 2000 Sch. MHC Supp-10). The Attorney General argues that the Company has not provided adequate support for the unusual 1997 write-off figure (Attorney General Reply Brief at 10). Therefore, the Attorney General

argues that any three-year average used to develop the net write-off ratio should exclude 1997 (id.).

The Attorney General uses the three year period from 1998 through 2000 to develop a net write-off ratio for his proposed 1999 bad debt adjustment (Attorney General Brief at 21). The Attorney General proposes a <u>pro forma</u> adjustment to the Company's test year bad debt expense, applying a three-year average write-off rate of 0.5508 percent to the test year revenue. This calculation results in an adjustment of \$132,000 to test year expense (<u>id.</u>).

Regarding the Company's proposed adjustment to test year revenues to account for standard offer service and default service price increases, the Attorney General argues that the Company is improperly attempting to include revenues that will not be earned until 2001 in the 1999 revenue base to which the bad debt ratio is applied (id. at 22). The Attorney General argues that the inclusion of projected revenues in a 1999 test year solely for the purpose of calculating <u>pro forma</u> bad debt expense is an "obvious mismatch" and should, therefore, not be allowed (id.).

b. <u>The Company</u>

The Company proposed bad debt expense is \$409,252, representing an increase of \$254,511 to its test year bad debt expense (Fitchburg Brief at 23). The Company states that the three-year period it used to calculate the test year bad debt adjustment (1997 through 1999) is consistent with Department precedent, stating that the most recent three years' net write-offs should not include net write-off data beyond the chosen test year (Fitchburg Reply Brief at 13, citing, D.P.U. 96-50 (Phase I) at 70-71). The Company maintains that it has adequately supported the 1997 net write-off ratio (id. at 14, citing Exh. AG-IR-1-69; Exh. FGE-2, 1999 Sch. MHC-Supp. 10). The Company also proposes to adjust its test year revenues to account

for increases in standard offer service and default service price growth rates (Fitchburg Brief at 24).

3. <u>Analysis and Findings</u>

To determine a representative amount of bad debt expenses, we must first determine a three-year average of net write-offs as a percentage of total retail revenues for the corresponding period, and then multiply the resulting percentage by test year retail revenues.

Western Massachusetts Electric Company, D.P.U. 84-25, at 113-114 (1984). Department precedent²⁵ allows for the use of the most recent three years of data, including post-test year adjustments. Commonwealth Electric Company, D.P.U. 90-331, at 138-139 (1991);

D.P.U. 85-270, at 179-180 (1989). While both parties have used a three-year average of net writeoffs as a percent of total retail revenues for the corresponding period, we find that the Attorney General's use of the three most recent years of data (i.e., 1998, 1999 and 2000) provides a more accurate representation of the Company's bad debt expense. Therefore, using the three most recent years of data, the Department will employ a write-off rate of 0.5508 percent to determine the Company's bad debt expense.

Regarding Fitchburg's proposed normalization of test year revenues to demonstrate increases in standard offer service and default service prices, these price increases occurred after the test year. Even if these price increases had occurred during the test year, the Department has not allowed a company to normalize revenues based on projected increases in a

Fitchburg appears to have misinterpreted Department precedent. On brief, the Company cites to D.P.U. 96-50 (Phase I) at 70-71 to support restricting the calculation of bad debt expense to the use of three years of data, ending with the test year. No such limiting language exists in D.P.U. 96-50, nor in any of the other Department orders cited.

specific charge for the purpose of determining its bad debt expense. Further, standard offer service and default service revenues are accounted for, and reconciled separate from, distribution revenues. It is inappropriate to include the standard offer service and default service revenues in the bad debt expense calculation. Any over-or under-recoveries in these accounts is either recovered from or returned to ratepayers according to the terms of the Company's standard offer service and default service tariffs. Accordingly, we will not adjust Fitchburg's test year revenues to account for increases in standard offer service and default service price growth rates.

B. <u>Rate Case Expense</u>

1. <u>Introduction</u>

A company's rate case expense is a periodically recurring expense. Fitchburg Gas and Electric Light Company, D.P.U. 1270/1414, at 37 (1983). It is, therefore, necessary to normalize this expense so that a representative amount is included in the cost of service. The Company has proposed a rate case expense of \$400,000 (Exh. FGE-2, 1999 Sch. MHC Supp-12). The Attorney General proposes a five-year amortization²⁶ period for rate case expenses, resulting in a normalized expense of \$80,000 (Exhs. AG-3). The Company proposes a three-year amortization period, resulting in a normalized expense of \$133,333 (Exh. FGE-2, 1999 Sch. MHC Supp-12). The parties do not dispute Fitchburg's proposed rate case expense of \$400,000 (Tr. 1 at 7).

As a general rule, rate case expenses are normalized rather than amortized. While parties often use these terms interchangeably, there is a reason for the use of the particular terms. Amortization implies that the utility is guaranteed a dollar-for-dollar recovery of the costs, while normalization is intended to only show a representative level of expenses in rates.

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General proposes to amortize rate case expenses over five years (Attorney General Brief at 23, citing Exh. AG-3). The Attorney General argues that, because rate case expenses should be amortized over the expected period between rate cases, and since the Company's last full rate case occurred approximately sixteen years ago, the use of a shorter amortization period would result in an over-collection of costs as the collection in rates would continue even after the costs are fully recovered (Attorney General Brief at 23; Attorney General Reply Brief at 11). The Attorney General avers that the Company has provided no argument that should cause the Department to deviate from its well founded precedent (Attorney General Brief at 22-23).

b. <u>The Company</u>

The Company argues that a three-year amortization period should be allowed in anticipation of future rate proceedings related to the implementation a performance-based ratemaking mechanism ("PBR") (Fitchburg Reply Brief at 16). Fitchburg further contends that the sixteen-year period since its last rate case is not representative of the timing of a future rate case proceedings (Fitchburg Reply Brief at 16).

3. <u>Analysis and Findings</u>

The Attorney General has proposed a normalization period of five years for rate case expense in response to the Company's proposed three-year normalization period. The Company's three-year period is inappropriately based on a future rate case. And while the Attorney General's proposed normalization period may be conservative, it too is inconsistent

with Department's well established rate case expense precedent. Nantucket Electric Company, D.P.U. 91-106/138, at 20 (1991); Berkshire Gas Company, D.P.U. 1490, at 33-34 (1983).

In order to derive an annual rate case expense, a normalization period must be developed and a representative rate case expense amount must be established. The Department's standard treatment for determining the appropriate normalization period is to average the length of periods between the filing dates of a company's last four rate case filings, including the instant case, rounded to the nearest whole number. D.P.U. 1490, at 33-34 (1983). Including the present case, the Company's four most recent rate case proceedings are: D.T.E. 99-118 (filed in 1999), D.P.U. 84-145 (filed in 1984), D.P.U. 1270 (filed in 1982), and D.P.U. 19084 (filed in 1977). The sum differences of the 15 years plus 2 years plus 5 years or 22 years, divided by three and rounded to the nearest whole number, results in a normalization period of seven years. Based on Fitchburg's history of electric rate case filings, we find that this normalization period is reasonable and appropriate and that no deviation from our precedent is warranted. Therefore, the Department will employ a seven-year normalization period, resulting in an annual revenue requirement of \$57,143 for rate case expense.

C. <u>Inflation Allowance</u>

1. <u>Introduction</u>

An inflation allowance compensates a utility for the effect of inflation on those O&M expenses that are not otherwise accorded separate treatment in the utility's cost of service. In determining an appropriate inflation allowance, an inflation factor is applied to a residual O&M test year expense base. Test year and rate year data are required to calculate the inflation

factor. Here, the parties differ regarding the appropriate date to begin the rate year and whether outside services should be included in the O&M base to which the inflation allowance is applied (Attorney General Brief at 23-24). The Attorney General has proposed an inflation allowance of \$113,000 (Exh. AG-2, exh. DJE-3, Sch. 3 at 2). The Company has proposed an inflation allowance of \$286,635 (Exh. FGE-2, at 32-34, 1999 Sch. MHC Supp-11).

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General argues that the outside services expense attributable to Fitchburg's distribution function declined from \$2.6 million in 1999, to \$2.2 million in 2000 (Attorney General Brief at 24 citing Exh. AG-2-8, Att. AG-2-8-2). The Attorney General argues that, if the purpose of the inflation allowance is to adjust test year O&M expenses for escalation between the test year and the rate year, it is inappropriate to subject expenses to escalation if they have, in fact, decreased from the test year (id. at 24). The Attorney General states that the Company concedes that outside services expense have not varied with inflation (id. at 24 citing Tr. 1, at 41-42). For the purposes of calculating his proposed inflation adjustment, the Attorney General assumes a rate year beginning September 1, 2001 (id. at 24, n.9).

b. <u>The Company</u>

The Company proposes an inflation allowance of \$286,635 for its electric distribution operations for test year 1999 (Fitchburg Brief at 25, citing Exh. FGE-2, at 32-34, 1999 Sch. MHC Supp-11). Fitchburg states that it applied the inflation adjustment to outside services and employee benefits other than health and dental because they are subject to inflation and are not adjusted elsewhere (id. at 26, citing Exh. FGE-2, at 34; Exh. AG-2, at exh. DJE-3). With

respect to the Attorney General's argument that outside services expense has not varied with inflation, Fitchburg disagrees and contends that the components of the outside service account consist primarily of payroll and related employee benefits, office services and business travel expenses, each of which is indeed subject to inflation (id. at 27, citing Exh. FGE-2, at 34; Tr. 1, at 58-59, 78-79; Fitchburg Reply Brief at 17). For the purposes of calculating its proposed inflation adjustment, the Company assumed a rate year beginning December 1, 2001 (Exh. FGE-2, 1999 Sch. MHC Supp-11).

3. <u>Analysis and Findings</u>

The inflation adjustment is an effective mechanism to compensate a company for the effect of inflation without the need to make separate adjustments for each O&M expense that is not otherwise accorded separate treatment in a company's cost of service. D.P.U. 92-210, at 77-78, n.41 (1993). The Department permits utilities to increase their test year "residual O&M" test year expense base (i.e., test year O&M expense less those O&M items which are separately adjusted or would not qualify for a separate inflation allowance) by the projected gross domestic product implicit price deflator ("GDP-IPD") for the period from the midpoint of the test year to the midpoint of the year following the implementation of the new rates. D.T.E. 98-51, at 100; D.P.U. 96-50 (Phase I) at 113; Cambridge Electric Light Company, D.P.U. 92-250, at 97 (1993).

The Attorney General's proposed adjustment is based on a decline in the Company's outside services costs between 1999 to 2000 (i.e., these accounts were subject to deflation rather than inflation). As a result, the Attorney General seeks to remove outside services from the Company's residual O&M balance. While the Attorney General is correct that the Company's outside services expenses declined between 1999 and 2000, the evidence indicates

that other O&M expense accounts, such as office supplies and expense (Account 921) and customer assistance (Account 909), increased at a rate greater than inflation between 1999 and 2000 (Exh. AG-2-8, Att. AG-2-8-2).

In most instances, singling one account out for special treatment is inconsistent with the overriding purpose of the inflation adjustment mechanism. It is not administratively efficient for the Department to engage in an account-by-account analysis of O&M expenses in order to determine a company's residual O&M balance. While the Department has removed specific O&M accounts from a company's residual O&M balance for the purposes of the inflation adjustment, this was done in instances where the specific account in question did not belong in a company's cost of service or where facts and circumstances associated with the particular account warranted specific adjustment. See D.T.E. 98-51, at 100-102 (1998); D.P.U. 1270, at 20-21 (1984). Because the account at issue here does not warrant specific adjustment, the Department will not remove Fitchburg's outside service expenses when calculating the inflation allowance.

Regarding the rate year that will be used for this proceeding, the Department has discretion as to when the rate year will begin. Unlike a Section 94 rate case, there is no statutory suspension deadline in a Section 93 proceeding. It is reasonable, however, to assume that the rate year will commence soon after the issuance of this Order. For ease of calculating the start of the rate year, the Department will presume a date of November 1, 2001. This corresponds to a rate year midpoint of May 1, 2002. Therefore, it is necessary to interpolate a GDP-IPD value using the index values for the first and second quarters of 2002.

Although the Company's computation method closely represents the method used by the Department, the record does not include a GDP-IPD index value for the first quarter of 2002

(Exh. AG 2-9, Att. AG-2-9-4). However, the Company has provided a projected annual inflation rate of 3.78 percent (<u>id.</u>). This projected rate represents an average monthly rate of 0.1643 percent (3.78 percent divided by 12). The Department will derive an inflation factor by multiplying the monthly inflation rate calculation of 0.1643 percent by the number of months that have elapsed between July 1, 1999 and May 1, 2002, <u>i.e.</u>, 34 months. This calculation produces an inflation rate of 5.58 percent, which, when applied to the Company's residual O&M expense of \$4,833,643, results in an inflation allowance of \$269,717. Accordingly, the Department will include an inflation allowance of \$269,717 for purposes of evaluating the Company's earnings.

D. <u>Reclassified Expenses</u>

1. <u>Introduction</u>

During the test year, Fitchburg reclassified \$201,000 of expenses from transmission expense to distribution expense. These expenses consist of \$74,000 of 1998 Independent System Operator ("ISO") expenses and \$127,000 of 1998 System Control and Load Dispatch expenses (Exhs. AG-3, AG-5-5). The Attorney General proposes to eliminate these reclassified expenses from the test year cost of service (Attorney General Brief at 25, citing Exh. AG-3). The Company, instead, proposes to keep these expenses in the test year cost of service.

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General argues that the Company's reclassification of expenses from transmission to distribution should be eliminated because these test year expenses are both

non-recurring and out-of-period (Attorney General Brief at 25). In addition, the Attorney General argues that the Company failed to demonstrate that the reclassified expenses were not already included in the test year distribution O&M accounts (id., citing Exh. AG-5-5).

b. <u>The Company</u>

The Company states that the ISO and System Control and Load Dispatch expenses were booked to a purchased power account (Account 556) and not included in test year total distribution O&M expense (Fitchburg Brief at 30, citing Exh. AG 2-8; Tr. 2, at 283-285). Because the reclassified expenses were not included in the test year O&M expense, the Company argues that these expenses should remain in its test year cost of service (Fitchburg Reply Brief at 19).

3. <u>Analysis and Findings</u>

Fitchburg testified that the ISO and System Control and Load Dispatch expenses were not included in the Company's 1999 electric distribution O&M accounts (Tr. 1, at 282-285, citing Exh. AG 2-8, Att. AG-2-8-2). However, the Attorney General argues that Fitchburg has not sufficiently demonstrated how these costs were excluded from the test year distribution O&M expenses. The Company's witness, Mr. Collin, testified that the reclassified expenses booked to account 556, which does not appear in the Company's calculation of its 1999 distribution O&M expense (Exh. AG 2-8, Att. AG-2-8-2; Tr. 2, at 284-285). We have examined Exhibit AG 2-8, Attachment AG-2-8-2. If the reclassified expenses had been included in the accounts listed on this page, it would be reasonable to assume that these expenses would have been booked to load dispatching (Account 581), which had a balance of \$0 in 1999 (Exh. AG 2-8, Att. AG-2-8-2). Consequently, the Department concludes that the costs in question were not included in the Company's 1999 electric distribution O&M accounts.

Therefore, we will not eliminate the ISO and System Control and Load Dispatch expenses from Fitchburg's test year cost of service.

E. <u>Depreciation Expense</u>

1. Introduction

Depreciation expense is the return to the investor *of* their investment, ²⁷ and thus is considered a part of a Company's cost of service recoverable from ratepayers. Hingham Water Company, D.P.U. 1590, at 22-23 (1984). During the test year, the Company booked \$1,669,206 in depreciation expense and \$53,060 in amortization expense, for a total expense of \$1,722,269 (Exhs. FGE-2, 1999 Sch. MHC Supp-16, at 1; AG 2-8, Att. at 1). ²⁸ For purposes of this Section 93 investigation, the Company proposes a total depreciation and amortization expense of \$2,343,969, consisting of \$2,290,909 in depreciation expense and \$53,060 in amortization expense (Exh. FGE-2, 1999 Sch. MHC Supp-1). Fitchburg's present depreciation accrual rates were implemented in 1985, based on a depreciation study conducted in connection with its 1984 rate case, D.P.U. 84-145 (Exhs. FGE-1, at 23; AG 2-9; AG 1-24).

Fitchburg relied on a depreciation study performed for both gas and electric operations ("1998 Study") in connection with the Company's gas division's most recent rate case, D.P.U. 98-51, to develop its proposed depreciation expense (Exhs. FGE-1, at 24; FGE-2, at 40). The 1998 Study proposed composite accrual rates of 4.88 percent for electric distribution plant and 5.17 percent for general plant (Exh. FGE-2, 1999 Sch. MHC Supp-16, at

As distinct from a return *on* the investment, which is a rate base issue.

The Attorney General has alleged that Fitchburg's overearnings for electric distribution operations were attributable, in part, to the Company's under-accrual of depreciation expense (Petition at 4).

2). Initially, Fitchburg proposed a composite depreciation accrual rate of 4.0 percent, after adjusting the accrual rate developed in the 1998 Study to incorporate the longer depreciation deficiency amortization period approved by the Department in D.T.E. 98-51²⁹ (Exh. FGE-1, at 24). Later, the Company revised its depreciation rates for electric distribution, general, and common plant to incorporate the hypothetical outcome of a full review of its electric depreciation accounts, based on the Department's findings in that proceeding. After these later adjustments, the Company determined that the appropriate composite accrual rates were 4.60 percent for distribution plant and 4.95 percent for general plant (Exhs. FGE-2, at 41-42, 1999 Sch. MHC Supp-16, at 2; AG 3-36). Application of these accrual rates to the Company's test-year-end distribution plant results in a total proposed depreciation expense of \$2,290,909 (Exhs. FGE-2, 1999 Sch. MHC Supp-16, at 1; AG 3-36).

The Attorney General proposes a total depreciation and amortization expense of \$2,065,000 (Exh. AG-2, at 6). To develop his proposed depreciation expense, the Attorney General relied on the Company's preliminary revisions to the 1998 Study that the Company represented as incorporating the modifications made by the Department in D.T.E. 98-51 (Exhs. AG-2, at 6; AG 2-9). Employing the Company's initial composite accrual rate of 4.0 percent, the Attorney General applied the composite accrual rate to a depreciable electric distribution plant balance of \$50,301,000 (including general and common plant), which produces a

In D.T.E. 98-51, the Company proposed to amortize its identified depreciation reserve deficiency over a period of 15 years. Instead, the Department approved the use of a 25-year amortization period (Exh. FGE-1, at 24; see also D.T.E. 98-51, at 77 (1998)).

While the Company proposes to use this depreciation expense as part of its earnings calculation, Fitchburg states that it will revise its accrual rates coincident with the implementation of its PBR (Exh. AG 3-18; Fitchburg Brief at 35).

depreciation expense of \$2,012,000 and an amortization expense of \$53,000 (Exhs. AG-2, exh. DJE-3, Sch. 3, at 3). The Attorney General later revised this proposed depreciation and amortization expense to reject the use of higher accrual rates, proposing a total expense of \$1,632,000 (Attorney General Brief, Att. 1, Sch. 3, at 1).³¹

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

While the Attorney General's witness proposed an increase to Fitchburg's depreciation expense, his proposal assumes that the Company will implement the revised accrual rates as a result of this Order (Attorney General Brief at 25, Attorney General Reply Brief at 12, citing Exh. AG-2, at 2-3, 14-15; Tr. 1, at 9-10). However, the Attorney General notes that Fitchburg has testified that no change will be made to the Company's depreciation rates until the implementation of its PBR (Attorney General Brief at 26, citing Exh. FGE-2, at 46; Attorney General Reply Brief at 12). Therefore, the Attorney General argues that the inclusion of increased accrual rates in Fitchburg's cost of service will only serve to perpetuate the Company's alleged overearnings (Attorney General Reply Brief at 13).

The Attorney General further argues that no increase is appropriate at this time because he could not conduct discovery and cross-examination on the 1998 Study (Attorney General Brief at 25-26; Attorney General Reply Brief at 13). Specifically, the Attorney General argues that the Company's revised depreciation expense calculations were not provided until after the

The Attorney General's initially-proposed accrual rates were based on the assumption that Fitchburg would implement the higher accrual rates, as proposed D.T.E. 98-51, after the Department's Order in this proceeding (Exh. AG-2, at 7).

close of discovery (Attorney General Reply Brief at 13, citing Exh. FGE-2). Further, the Attorney General contends that problems and inconsistencies identified in the 1998 Study, particularly with respect to Account 373 (Streetlighting and Signal Systems), render the results of the 1998 Study suspect (Attorney General Brief at 26, n. 11 citing Tr. 1, at 139-140; Tr. 2, at 282; Attorney General Reply Brief at 13-14).

The Attorney General defends his depreciation calculations as uncontested on the record, and urges the Department to disregard Fitchburg's arguments on brief faulting the Attorney General's calculations (Attorney General Reply Brief at 14). The Attorney General argues that the use of a 4.0 percent composite accrual rate is reasonable for purposes of this proceeding, pending a full investigation of the reasonableness of the 1998 Study's conclusions for electric plant, particularly in light of the Company's claims of a depreciation reserve deficiency (Exhs. AG-1, at 6; AG 2-9). In addition, the Attorney General contends that, in contrast to the expense level claimed by Fitchburg, his test year depreciation expense of \$1,448,000 has appropriately excluded depreciation on transmission plant, which is consistent with the treatment of transmission plant for the purposes of this investigation (Attorney General Reply Brief at 14-15, citing Exhs. AG 4-13; FGE-2, Schs. MHC Supp-16, MHC Supp-17).

b. <u>The Company</u>

The Company claims that its present accrual rates are inadequate and have produced a significant deficiency in its depreciation reserve (Fitchburg Brief at 35, Fitchburg Reply Brief at 21). See also D.T.E. 98-51, at 70 (1998). The Company argues that the Attorney General has tacitly acknowledged that Fitchburg's depreciation accrual rates are too low (Fitchburg Brief at 33, citing Exh. AG-2). Fitchburg argues that the Attorney General's arguments are contrary to

the recommendations of his own expert witness who accepted the Company's depreciation accrual rates (Fitchburg Reply Brief at 19). Arguing that the Attorney

General's witness accepted the 1998 Study results, the Company states the Attorney General's claim of an inability to conduct discovery and cross-examine on depreciation is "empty and preposterous" (id. at 19-20, citing Exh. AG-3; Tr. 1, at 8-9). Therefore, the Company argues that the only real issue with respect to depreciation is the timing of the implementation of new accrual rates (Fitchburg Brief at 35). With respect to timing, Fitchburg maintains that any changes to its depreciation accrual rates should be coincident with the implementation of its PBR (id.).

The Company states that the Attorney General has not properly calculated his newly proposed <u>pro forma</u> depreciation expense, arguing that the Attorney General improperly used a test year expense of \$1,448,000, when, in fact, the actual test year depreciation expense was \$1,669,206 (Attorney General Reply Brief at 20, <u>citing Exh. AG 4-13</u>). Fitchburg argues that the Attorney General's objection to the proposed accrual rates fails to account for the removal of costs, net of salvage, which must be factored into depreciation accrual rates (<u>id.</u> at 20-21, <u>citing Tr. 2</u>, at 282).

3. <u>Analysis and Findings</u>

Depreciation studies rely both on statistical analysis and the judgment and expertise of the preparer. D.P.U. 94-50, at 351 (1996); D.P.U. 92-250, at 64 (1992); Commonwealth Electric Company, D.P.U. 88-135/151, at 37 (1989). In order to properly assess the results of such studies, the Department must investigate both of these areas of reliance.

While both parties suggest that higher depreciation accrual rates are necessary, the electric accrual rates contained in the 1998 Study were not the subject of investigation in

D.T.E. 98-51. Such rates will be examined in the context of the Company's next electric base rate case proceeding pursuant to Section 94. In the absence of a thorough examination of the Company's electric plant depreciation accrual rates, there is no basis to conclude that the 15-year amortization of gas plant-related depreciation accrual deficiencies approved in D.T.E. 98-51 are applicable to electric plant. Therefore, there is an insufficient basis on which to determine whether the Company's revisions to the 1998 Study produce reliable accrual rates.

More significantly, Fitchburg has repeatedly stated its intent not to apply the higher accrual rates until the adoption of a PBR mechanism sometime in the future (Exh. AG 3-18; Fitchburg Brief at 35). In essence, the Company is seeking inclusion in rates of costs that are not being incurred now, and will not be incurred for some time. Proposed changes to test year revenues and expenses require a showing that the adjustment constitutes a "known and measurable" change to test year cost of service. See <u>Dedham Water Company</u>, D.P.U. 84-32, at 17 (1984); Massachusetts Electric Company, D.P.U. 136, at 3 (1980). While the result of higher accrual rates on depreciation expense is measurable, the Company's future use of those higher rates is certainly not known; in fact, Fitchburg has stated that it has no intention of changing its accrual rates in response to this Order (Exhs. FGE-2, at 46; AG 3-8). Therefore, we find that the Company's proposed increase in depreciation accrual rates is not a known and measurable change to the test year cost of service. See D.P.U. 96-50 (Phase I) at 109; Western Massachusetts Electric Company, D.P.U. 1300, at 94-95 (1983). Accordingly, the Department rejects the use of the 1998 study to determine Fitchburg's depreciation expense. Instead, we will use the Company's present depreciation accrual rates (Exhibit AG 1-24) to determine Fitchburg's depreciation expense.

Concerning the appropriate level of depreciation expense, the Company claims that the Attorney General has overlooked approximately \$201,000 in test year depreciation expense (Fitchburg Reply Brief at 20). In support of its proposed expense, Fitchburg argues that Exhibit AG 4-13 reconciles the Company's proposed depreciation expense of \$1,756,816 (Exhibit AG 2-8) with the \$1,669,206 reported in Fitchburg's 1999 annual return to the Department. However, a review of Fitchburg's 1999 annual return to the Department demonstrates that the Company's reported depreciation expense of \$1,669,206 includes \$2201,183 in depreciation associated with transmission plant (Exh. AG 1-2, 1999 annual return to the Department at 336). The Company's rate base calculations have excluded transmission plant in service. Therefore, the Department shall exclude depreciation expense associated with transmission plant from the Company's cost of service.

With regard to the Attorney General's proposed inclusion of depreciation associated with year-end plant in service, we find that this adjustment is reasonable and necessary in order to recognize the Company's depreciation expense based on year-end plant in service.

D.P.U. 88-67 (Phase I) at 153-154 (1988). While the Attorney General proposes an increase of \$111,000 to provide for depreciation based on year-end plant in service, he provides insufficient evidence to quantify his proposed adjustment. The Department's method, provided below, is intended to annualize the Company's depreciation expense based on its year-end plant in service. Application of the Company's current depreciation accrual rates to the distribution plant balance and that portion of general plant assigned to electric operations³² produces an annual depreciation expense of \$1,449,792 (Exhs. AG 1-24; AG 2-6).

The Company's common plant is used for both electric and gas operations. Fitchburg assigns 64.4 percent of its common plant to electric operations (Exh AG 2-8).

F. <u>Property Taxes and FAS 109 Expense</u>

1. Introduction

During the test year, Fitchburg booked \$713,314 in property tax expense (Exh. AG 2-9). The Attorney General proposes to include \$687,000 in cost of service based on a proposed distribution plant allocator of 92.79 percent applied to the Company's \$740,240 estimate³³ of property tax expense for the period November 1, 2001 through October 31, 2002 (Exh. AG-2, at 7, exh. DJE-3, Sch. 3, at 4). The Attorney General's proposed increase is the arithmetic average of property tax increases for the period 1992 through 2000 (Exh. FGE-2, at 39, 1999 Sch. MHC Supp-15).

The Company proposes a property tax expense of \$679,701 (Exh. FGE-3, 1999 Sch. MHC Supp-15). This expense is based on the Company's estimate of property tax bills covering the period November 1, 2001 through October 31, 2002 of \$755,224, less \$75,522 allocated to internal transmission (id.).

Deferred income taxes are accrued when a utility has a current deduction or credit for tax purposes, but not for book purposes (Tr. 1, at 45). Under FAS 109, a regulatory asset is created when a corporation has recovered insufficient deferred income taxes to cover the amount that it expects to pay out in the future (Exh. AG-2, at 8; Tr. 1, at 44-46).³⁴ The regulatory asset amount that a corporation must record on its books and amortize results from

The Company's projected property tax expense includes an estimated increase of 6.2 percent over test year property tax level, intended to capture anticipated property tax levels for its assumed rate year beginning November 1, 2001 (Exh. FGE-2, 1999 Sch. MHC Supp-15).

A regulatory liability may also arise under FAS 109 if a corporation has an over-collection of deferred income taxes (Tr. 1, at 44-45).

the recognition of any net deferred income tax deficiency (Exh. AG-2 at 8; Tr. 1, at 44-46; Tr. 2, at 246, see also Fitchburg Gas and Electric Light Company, D.P.U./D.T.E. 97-115/98-120, at 62, n.33.

The Attorney General proposes to include \$242,000 of FAS 109-related expenses in the Company's income tax calculation (Exh. AG-2, exh. DJE-3, Sch. 3, at 5). To derive this expense, the Attorney General multiplied the Company's FAS 109 regulatory asset balance of \$5,218,000 by his proposed distribution plant allocator³⁵ of 92.79 percent and amortized the resulting \$4,842,000 over 20 years (Exh. AG-2, at 8-9, exh. DJE-3, Sch. 3, at 5). The Attorney General selected a 20 year amortization period to represent the average remaining life of the Company's distribution plant (Exh. AG-2, at 8-9; Tr. 1, at 46).

The Company proposed to include \$234,821 of FAS 109-related expenses in its cost of service (Exh. FGE-2, 1999 Sch. MHC Supp-5, at 2). To derive this expense, Fitchburg multiplied its FAS 109 regulatory asset balance of \$5,218,252 by its proposed distribution plant allocator of 90 percent, and amortized the resulting \$4,696,427 over a proposed amortization period of 20 years (Exh. FGE-2, at 22, 1999 Sch. MHC Supp-5, at 2).

2. <u>Positions of the Parties</u>

a. <u>Attorney General</u>

The Attorney General argues that both property taxes and the FAS 109 component of income taxes must be allocated between transmission and distribution operations (Attorney General Brief at 26). The Attorney General maintains that, in order to be internally consistent with his proposed allocation of deferred income taxes, property taxes and the FAS 109

This is the same percentage that the Attorney General used allocate deferred income taxes.

component of income taxes must be allocated between transmission and distribution functions on the basis of net plant (<u>id.</u> At 20, 26).

b. <u>The Company</u>

Fitchburg maintains that the Department permits property tax expense to be based on the most recent tax bills received (Fitchburg Brief at 32, citing Massachusetts Electric Company, D.P.U. 89-194/195, at 53 (1990); D.P.U. 93-60, at 220 (1993); Colonial Gas Company, D.P.U. 84-94, at 19 (1984). Maintaining that the time constraints of this proceeding preclude the Company from obtaining information on its rate year property tax obligations, Fitchburg argues that its "trended" property tax estimate was unchallenged by the Attorney General and is appropriate for determining whether the Company is overearning (Fitchburg Brief at 32). Further, Fitchburg contends that its use of a gross plant allocator to apportion both property taxes and FAS 109 expense between transmission and distribution plant is consistent with the method used to allocate deferred income taxes (id.).

3. <u>Analysis and Findings</u>

a. <u>Property Taxes</u>

The Department's general policy bases property tax expense on the latest property tax bills a utility receives from the cities and towns. D.P.U. 96-50 (Phase I) at 109 (1996); D.P.U. 93-60, at 220 (1993); D.P.U. 84-94, at 19 (1984). The Company's property tax calculations include a 6.2 percent escalation rate intended to incorporate estimated property tax expense for its estimated rate year period beginning November 1, 2001 (Exh. FGE-2, 1999 Sch. MHC Supp-15). Reliance on projected property taxes is inconsistent with Department ratemaking practice. In the absence of unusual circumstances, the Department does not allow projected expenses in costs of service. D.P.U. 96-50 (Phase I) at 109-110 (1996). Therefore, the

Department will not include Fitchburg's proposed property tax escalation factor in its cost of service.

Concerning the allocation of property taxes between transmission and distribution operations, for reasons of consistency with our treatment of deferred income taxes and FAS 109 obligations, we consider an allocation on the basis of net plant appropriate.

Accordingly, the Department finds that property tax expense should be allocated between the Company's transmission and distribution plant on the basis of net plant in service.

The Department has concluded in Section V.D.3, above that a distribution plant allocator of 92.79 percent for deferred income taxes was reasonable. Therefore, the Department will apply a distribution plant allocator of 92.79 percent to determine the amount of property taxes associated with distribution plant. Application of the 92.79 percent allocation factor to the amount of Fitchburg's property taxes included in cost of service (\$710,826) produces an allocation to distribution plant of \$659,575.

b. <u>FAS 109 Expense</u>

Concerning the allocation of FAS 109 expenses, the Department has found in Section V.D.3, above, that deferred income taxes should be allocated on the basis of net transmission and distribution plant. Consistent with this treatment, the Department finds it appropriate to allocate FAS 109 expenses between transmission and distribution operations on the basis of net plant. Based on our conclusions with respect to the Company's deferred income and property taxes, the Department shall apply a distribution plant factor of 92.79 percent to derive the FAS 109 expense associated with distribution plant. Application of this allocator to Fitchburg's test year FAS 109 revenue requirement of \$5,218,252 produces an allocation to distribution plant of \$4,842,016.

Both parties have proposed a 20-year amortization period for the Company's FAS 109 obligations (Exhs. FGE-2, 1999 Sch. MHC Supp-5, at 2; AG 2, at 8-9). A 20-year amortization period fairly represents the average remaining life of the Company's distribution plant (Exh. AG 1-24). Therefore, the Department will use a 20-year amortization period for Fitchburg's FAS 109 obligations. Application of an amortization period of 20 years to distribution-related FAS 109 obligations of \$4,842,016 results in an annual FAS 109 expense of \$242,101. Accordingly, the Department will use a FAS 109 expense of \$242,101 in the Company's income tax calculations.

G. <u>Reconciliation Issues</u>

1. <u>Introduction</u>

The parties dispute the ramifications of certain issues that were considered in Fitchburg's transition charge reconciliation proceeding, Fitchburg Gas and Electric Light Company, D.T.E. 99-110 (Phase II) (2001). The parties differ concerning the effect of the following three issues: (1) the balance of the Company's FAS 109 regulatory asset balance; (2) divestiture-related administrative and transaction costs; and (3) generation portfolio management costs.

2. Positions of the Parties

a. <u>Attorney General</u>

The Attorney General argues that the FAS 109 issue is only material to this proceeding if the Department agrees with the Company's position in D.T.E. 99-110 (Attorney General Brief at 27). Specifically, the Attorney General states that the Company allocated a portion of its FAS 109 balance to the generation function in D.T.E. 99-110, but did not allocate any of its FAS 109 balance to the generation function in this proceeding (id. at 28). Therefore, the

Attorney General argues that, were the Department to agree with the Company's position in D.T.E. 99-110, then the Department would have to reduce the FAS 109 balance in this proceeding by the amount of the FAS 109 balance that was allocated to the generation function in D.T.E. 99-110 (id.).

Regarding the divestiture-related administrative and transaction costs and the generation portfolio management costs, the Attorney General argues that these costs are not related to the provision of distribution service in the rate year (id. at 28-29). The Attorney General states that if the Department accepts the Attorney General's position on the treatment of these costs in D.T.E. 99-110, and the Company continues to incur these costs prospectively, then it would be appropriate to include a normal, ongoing level of such expenses in the Company's cost of service in this proceeding (id.). However, the Attorney General argues that the Company has not provided any estimate of the level of such expenses that will be incurred on an annual basis (<u>id.</u>). The Attorney General contends that if the Department finds that these costs are distribution-related in D.T.E. 99-110, the Company should have the opportunity to justify the inclusion of these costs in its cost of service as a distribution expense (Attorney General Replay Brief at 16). However, the Attorney General avers that since rates are being set on a prospective basis, since these costs were incurred from 1997 through 1999, and since Fitchburg has failed to demonstrate that these costs will be incurred in the rate-effective period, the Company should not be allowed to include such costs in its distribution cost of service in this proceeding (<u>id.</u>).

b. <u>The Company</u>

The Company argues that if the Department agrees with the Attorney General on the FAS 109 issue in D.T.E. 99-110, a \$1.5 million revenue deficiency for the Company will

result as Fitchburg has assumed that these costs would be recovered through the transition charge (Fitchburg Brief at 35-36). Fitchburg states that the FAS regulatory asset balance that was assigned to the generation function in D.T.E. 99-110 was not included in the calculation of the amount of accumulated deferred income taxes assigned to the distribution function in this proceeding (Fitchburg Reply Brief at 22). Thus, the Company argues that a finding against the Company regarding the FAS 109 regulatory asset balance in D.T.E. 99-110 would require additional expenses to be added to the Company's revenue requirement calculation in this proceeding (Fitchburg Brief at 36).

Regarding the divestiture-related administrative and transaction costs and the generation portfolio management costs, the Company argues that, if the Department agrees with the Attorney General's position in D.T.E. 99-110 that these costs are distribution-related, then Fitchburg should not be precluded from justifying the inclusion of these costs in its cost of service in this proceeding, and/or in any future rate proceeding as a distribution expense (id.).

3. Analysis and Findings

In D.T.E. 99-110, the Department accepted the Company's proposal regarding its

FAS 109 regulatory asset balance. D.T.E. 99-110 (Phase II) at 38-40 (2001). However, the

Department directed the Company to include temporary differences for all accounts that make

up the FAS 109 regulatory asset balance in its calculation of the final FAS 109 regulatory asset

balance. Id. at 40. The Attorney General alleges that the Department's finding in

D.T.E. 99-110 warrants an adjustment to the Company's FAS 109 balance in this proceeding

because the Company did not allocate any of its FAS 109 balance to generation for the

purposes of this investigation. The evidence, however, shows otherwise (Exh. AG-RR-1, Att.

AG-RR-1, at 1). The Company removed deferred taxes associated with generation plant from

its calculation of total deferred taxes for electric distribution (id.). Therefore, our finding with regard to the Company's FAS 109 regulatory asset balance in D.T.E. 99-110 does not necessitate an adjustment to the Company's FAS 109 balance in this proceeding.

In D.T.E. 99-110, the Department disallowed \$1,739,771 in transaction costs from the Company's transition costs. D.T.E. 99-110 (Phase II) at 30-32 (2001). The Department's finding was based on the fact that Fitchburg failed to demonstrate that these costs were directly related to the divestiture of its generating assets. <u>Id</u>. Once again, this finding has no effect on this proceeding. While the costs that have been disallowed in D.T.E. 99-110 may be distribution-related costs, it would be inappropriate for the Department to include these costs in the Company's test year cost of service because the Company has yet to seek recovery of these costs through its distribution rates. The Department notes, and the Company acknowledged in D.T.E. 99-110, that there are currently costs embedded in Fitchburg's distribution rates that relate to proceedings that have been rendered obsolete by the advent of electric restructuring. D.T.E. 99-110 (Phase II) at 30-31 (2001). The Company is not precluded from seeking recovery of these costs in its next distribution rate case proceeding.

Regarding the generation portfolio management costs, in D.T.E. 99-110 the Department found that the Company is entitled to recover a representative level of costs through its residual value credit. D.T.E. 99-110 (Phase II) at 26-27 (2001). There is no need for the Department to adjust the Company's test year cost of service in this proceeding for costs that will be recovered through the transition charge.

VII. <u>CAPITAL STRUCTURE AND RETURN ON EQUITY</u>

A. <u>Capital Structure</u>

1. Introduction

A company's capital structure consists of long-term debt, preferred stock, and common equity. Fitchburg proposes a capital structure consisting of \$54,000,000 in long-term debt, \$2,235,640 in preferred stock, and \$40,285,726 in common equity (Exh. FGE-2, 1999 Sch. MHC Supp-21). This capitalization includes several post-test year adjustments, including:

(1) \$14,000,000 in long-term debt issued pursuant to Fitchburg Gas and Electric Light

Company, D.T.E. 01-43 (2001); (2) \$4,000,000 in sinking fund payments made on the

Company's 8.55 percent note; (3) a reduction of \$1,545,064 in its preferred and common equity balances to account for capital stock expense; and (4) an increase of \$345,255 in retained earnings intended to recognize Fitchburg's net earnings during 2001 (id.;

Exhs. AG 2-10; FGE-2, at 43-44; Tr. 2, at 252-254). In contrast, the Attorney General proposes a capital structure consisting of \$54,000,000 in long-term debt, \$2,272,000 in preferred stock, and \$40,249,000 in common equity (Exh. AG-2, exh. DJE-3, Sch. 5).

2. <u>Positions of the Parties</u>

The Company states that, while the sum of the Attorney General's proposed preferred stock and common equity balances are in accord with those proposed by Fitchburg, the Attorney General apparently had attributed the entire balance of the Company's capital stock expense to common equity (Fitchburg Brief at 41-42, citing Exhs. AG-2, exh. DJE-3; FGE-2, 2000 Sch. MHC Supp-21). Fitchburg argues that its accounting records attribute a portion of capital stock expense to its preferred stock accounts (id. at 42). The Attorney General did not address this issue.

3. <u>Analysis and Findings</u>

The Department will normally accept a utility's test year-end capital structure unless the capital structure deviates substantially from sound utility practice. D.P.U. 91-106/138, at 97 (1991); D.P.U. 1360, at 26-27 (1983); Blackstone Gas Company, D.P.U. 1135, at 4 (1982). The Department's policy on post test-year capital structure changes is to allow only those adjustments that are known and measurable (i.e., the proposed issuance or retirement of securities has actually taken place by the date of the order). Berkshire Gas Company, D.P.U. 90-121, at 156-157 (1990); Boston Gas Company, D.P.U. 88-67 (Phase I), at 174 (1988); D.P.U. 84-94, at 51-53 (1984).

The Company's issuance of \$14,000,000 in long-term debt and sinking fund payments constitute a known and measurable change to Fitchburg's test year capitalization, and will, therefore, be incorporated in the Company's proposed capital structure. D.P.U. 84-94, at 50-52 (1984). Turning to the Company's capital stock expense adjustment, the evidence supports a finding that Fitchburg has attributed \$37,981 in capital stock expense to preferred stock and \$1,507,083 to common stock (Exhs. FGE-2, Sch. MHC Supp-21; AG 2-1, 1999)

Annual Return at 112; AG 2-10). Both common and preferred stock may have associated capital stock expense. 220 C.M.R.§ 51.00, et. seq.; 18 C.F.R. Ch. 1, Pt. 101 at 326, Revised as of April 1997. Therefore, the Company has appropriately booked its capital stock expense both to its common and its preferred stock. Based on the foregoing analysis, the Department accepts Fitchburg's proposed capitalization for purposes of this investigation.

B. Return on Common Equity

1. <u>Introduction</u>

Fitchburg's most recently approved rate of return on common equity ("ROE") for electric operations, approved by the Department in D.P.U. 1270/1414 (1983), is 16.3 percent. In this proceeding, Fitchburg proposes an 11.5 percent ROE (Exh. FGE-4, at 3; Tr. 2, at 153-155). In determining the proposed cost of equity, the Company relied on three discounted cash flow ("DCF") methods: (1) a constant growth DCF analysis; (2) a non-constant growth market price DCF analysis; and (3) a non-constant growth with ten-year transition to competition DCF analysis (Exh. FGE-4, at 3; Tr. 2, at 153-154). Fitchburg also presented a risk premium analysis (Exh. FGE-4, at 3). These details of Fitchburg's application of these four methods are described in Sections VII.B.2 and VII.B.3, below.

The results of Fitchburg's DCF analyses indicate a median spread of equity calculations between 10.6 percent and 11.9 percent (Exh. FGE-4, at 25, 29). The results of the risk premium analysis indicate a spread of equity calculations between 11.6 and 13.4 percent (Exh. FGE-4, at 29). Because Fitchburg is a wholly-owned subsidiary of Unitil, there are no available market data for the Company's common stock, and consequently no means to directly assess investor's expectations of the Company's projected required return. Therefore, the

Company relied upon the market and financial data from fourteen electric utilities³⁶ ("comparison group") for which data was available from the Value Line Investment Survey ("Value Line").

Although the Attorney General did not present a direct case on ROE, he initially proposed the use of an ROE of 10.58 percent, considering this rate to be consistent with the carrying charges on generation investment included in the Company's transition charge that was approved pursuant to D.T.E. 97-115/98-120 (Exh. AG-1, at 9). In his brief, the Attorney General evaluated the Company's proposal and recommended a 9.9 percent ROE (Attorney General Brief at 41).

2. <u>Cost of Capital Models</u>

a. <u>Discounted Cash Flow Analyses</u>

i. Constant Growth DCF

The DCF model holds that the ROE is the sum of the expected dividend yield and the expected long-term dividend growth rate (Exh. FGE-4, at 11). The model is based on the assumption that stock prices represent the present value (or discounted value) of all future dividends that investors expect to receive (id., at 12).

Fitchburg used the following equation as the foundation for its three DCF analyses:

The Company selected utilities for the comparison group that were: (1) larger than Fitchburg; (2) had at least 75 percent of their total revenues derived from domestic electric operations; (3) maintained a higher equity component in their capital; and (4) had a bond rating of A or higher, versus Fitchburg's implied BBB rating (Tr. 2, at 171-172). The resulting comparison group includes Amern Corporation, Cleco Corporation, DPL Incorporated, DQE, DTE Energy, Energy East Corporation, FPL Group, IDACORP, Kansas City Power and Light Company, NSTAR, Pinnacle West, Potomac Electric Power Company, Puget Energy, and UIL Holdings (Exhs. FGE-5, at 1; AG 6-13).

Expected Return on
$$P_0 = \ D_1/(1+k) + \ D_2/(1+k)_2 + \ \dots \ D_7/(1+k)^?$$
 Common Equity

where P_0 is the current common stock price; D_1 , D_2 , D_7 are the dividends per share expected to be paid in the future; and k represents the discount rate or the investor's required rate of return on equity (id.).

Under the additional assumption that dividends are expected to grow at a constant rate, "g", and that k is strictly greater than "g", the equation can be solved for k and rearranged into the following equation:

Expected Return
$$on & k = D_1/P_0 \, + \, g \\ Common \ Equity$$

where k is the investor's required rate of return on common equity, D_1/P_0 is the expected dividend yield and g is the long-term expected dividend growth rate (<u>id.</u> at 12-13).

To determine the dividend yield component for its Constant DCF analysis, the Company divided the projected dividend for the coming year (based on 2001 year data) by the average stock price for each of the comparable companies for the three months ending March 2001 (id. at 2, 5). Based on these projections, the Company derived an average dividend yield for the comparison group of 5.12 percent, with a median of 5.28 percent (Exh. FGE-5, at 2).

To derive the growth rate component, the Company relied on a sustainable growth rate estimate.³⁷ Fitchburg also relied on two earnings-per-share growth rate forecasts obtained from Value Line and Zacks Investment Research ("Zacks") (Exhs. FGE-5, at 2; AG 6-15; Tr. 2,

The sustainable growth rate estimate measures the expected growth rate of earnings, dividends, and book value. It is derived by multiplying a company's retention rate (i.e., the percentage of earnings not paid out in dividends) by an earned rate of return on equity (Exh. FGE-5, at 2; Tr. 2, at 176-177).

at 176-178). Based on these company-specific prospective growth rates, the Company assumed an average growth rate of 6.36 percent for the comparison group (Exh. FGE-5, at 2). The Company then added the dividend yields and growth rate estimates, producing a range of ROEs for the comparison group of between 11.5 and 11.7 percent, with an average of 11.6 percent (<u>id.</u>).

ii. Non-constant Growth Terminal Value DCF

The second approach used by the Company was the nonconstant growth terminal value DCF approach ("Market DCF"). The Market DCF model assumes that the investor purchases stock at a then-current market price, holds the investment for a certain number of years while receiving annual dividends, and then sells the investment at the prevailing market price (Exh. FGE-4, at 14). This DCF approach is modeled by the following equation:

Expected Return on
$$P_0 = \ D_1/(1+k) + \ D_2/(1+k)^2 + \ \dots + \ P_T/(1+k)^T$$
 Common Equity

where P_0 is the current market price per share on the common stock; P_T is the estimated stock price at the end of the transition period T; D_1 and D_2 are the dividends per share expected to be paid in the future; and k represents the discount rate or the investor's required rate of return on equity (id.).

Fitchburg's Market DCF is based on an analysis of dividends and stock prices through the years 2004 or 2005 for each company in the comparison group³⁸ (Exh. FGE-5, at 3). To

Dividend projections through 2005 were available for only six of the 14 companies in the comparison group. Data through 2004 were available for the remaining eight companies (Exh. FGE-5, at 3).

determine the dividends for the first year of the projection, the Company relied on estimates from Value Line (id., at 2-3). The dividends for the succeeding years were also estimated using Value Line data (id., at 3). In order to calculate the future stock price, the Company multiplied the current price-to-earnings ratio ("P/E")³⁹ by Value Line's projected earnings-pershare in 2004 or 2005⁴⁰ for each company in the comparison group (id.). Using the current stock price for each company in the comparison group, Fitchburg projected the annual dividends per share to the year 2004 or 2005, as appropriate, and took the sum of the projected future stock price and dividends per share over the holding period (id.). Using these data, the Company derived an average ROE of 11.3 percent, with a median ROE of 10.6 percent (id.).

iii. Non-constant Growth Transition DCF

Under the non-constant growth ten-year transition to competition DCF approach ("Competition DCF"), the Company expanded the original DCF equation to incorporate multiple growth rate periods, assuming that a permanent constant growth rate can be estimated for some point in the future (Exh. FGE-4, at 15). The Competition DCF approach is modeled by the following equation:

Expected Return on
$$P_0 = D_0(1+g_1) / (1+k) + ... + D_0(1+g_2)^n / (1+k)^n + \\ Common Equity ... + D_0(1+g_1)^{(T+1)} / (k-g_1)$$

where P_0 is the current market price per share on the common stock; D_0 is the dividends per share expected to be paid in the future; k is the discount rate or the investor's required rate of

The price-to-earnings ratio was calculated for each company in the comparison group by dividing the company's three-month average stock price by Value Line's annual earnings per share, through September 2000 (Exh. FGE-5, at 3, 5).

See n.38, above.

return on equity; and g_1 , g_2 , and g_t are the growth rates for each period from year T (the end of the transition period) to infinity (<u>id.</u>). According to the Company, the first two growth rates are simply estimates for the fluctuating growth over "n" years (estimated to be five or ten years), and g_t is a constant growth rate assumed to prevail after year T (<u>id.</u>).

To determine the dividend yield component of the Competition DCF approach, the Company used the same method as was applied in its Constant DCF analysis (i.e., dividing Value Line's projected dividend for the coming year by the average price for each of the comparable companies for the three months ending March 2001) (id.). This method produced an average dividend yield for the comparison group of 5.1 percent, with a median of 5.3 percent (Exh. FGE-5, at 4).

To determine the growth rate, the Company calculated a short-term growth rate for years two through five, a transitional growth rate for years six through ten, and a long-term growth rate for years eleven and thereafter (id.). The short-term growth rate was derived by using the average growth rate used in the Company's Constant DCF analysis (id., at 4-5). The long-term growth rate for each of the comparable companies was calculated by averaging the average of the short-run growth rate for the comparison group and the long-term growth rate from Standard and Poor's 500 Index (S&P 500) of 7.0 percent, producing an average long-term growth rate of 6.68 percent (id. at 4-5; Tr. 2, at 196-197). The transitional growth rates represent annualized interpolations of the long-term growth rates and dividend yields developed for each comparison company under the Constant DCF analysis (Exh. FGE-5, at 4-5; Tr. 2, at 163, 195-196). This analysis results in an average effective growth rate of 6.50 percent, with a median of 6.6 percent (Exh. FGE-5, at 4). The sum of the dividend yield

and growth rate estimates produces ROEs ranging between 11.7 and 11.9 percent (Exh. FGE-5, at 4).

b. <u>Risk Premium Analysis</u>

The Company supplemented the results of its DCF analyses with a risk premium analysis. The risk premium analysis is based on the theory that the required cost of equity can be estimated by determining the prospective costs of long-term debt and adding a risk premium to recognize the fact that the equity holder has only a residual claim on assets and earnings (Exh. FGE-4, at 15-16).

The Company's risk premium analysis was divided into two parts (id., at 26). To measure the long-term cost of debt, Fitchburg averaged the yield on A-rated and BBB-rated utility bonds for the period January through March of 2001, producing an average bond yield of 7.68 percent (Exh. FGE-4, Sch. 2). To develop the risk premium, Fitchburg compared historic long-term debt rates for the period 1980 through 2000 with authorized ROEs granted by other state utility commissions for that same period (Exh. FGE-4, at 26). Based on a historic long-term debt rate of 10.13 percent and authorized regulatory returns of 12.96 percent, the Company determined that the average risk premium for the period was 2.83 percent (Exh. FGE-4, Sch. 5, at 1).

The Company performed a regression analysis on the equity risk premiums and determined that a relationship exists whereby risk premiums increase and decrease inversely with interest rate changes (Exh. FGE-4, at 26-27, Sch. 5, at 2). Application of the results of the regression study to the 2.45 percent difference between current and historic long-term bond yields results in an equity risk premium of 3.88 percent. The Company added the cost of long

term debt (7.68 percent) to the equity risk premium (3.88 percent) to determine an ROE of 11.6 percent (Exh. FGE-4, Sch. 5, at 1-2).

The Company compared the results of its risk premium analysis with the results contained in other published risk premium studies. Based on the annual risk premium study published by Ibbotson Associates ("Ibbotson Study"), Fitchburg determined that, using a more conservative geometric mean, versus arithmetic average, of the premia found in the Ibbotson Study, a risk premium of 5.7 percent would result. Added to the cost of long term debt, this produced an ROE of 13.38 percent (Exh. FGE-4, at 27-28). The Company also referred to the results of a 1992 study conducted by Robert S. Harris and Felicia C. Marston ("Harris-Marston Study"), which indicated a risk premium of 6.47 percent, producing an ROE of 12.81 percent (Exh. FGE-4, at 26 n.1, 28).

3. <u>Positions of the Parties</u>

a. Attorney General

The Attorney General argues that the Company's present earnings are in excess of those recently allowed by the Department and in other jurisdictions (Exhs. AG-1, at 9; FGE 2-17). Initially, for the purposes of this Section 93 proceeding, the Attorney General considered a proposed ROE of 10.58 percent, which would be consistent with the carrying charges on generation investment included in the Company's transition charge that was approved pursuant to D.T.E. 97-115/120 (Exh. AG-2, at 14). However, after review of the Company's analyses, the Attorney General opted for single digits and now proposes a ROE of 9.9 percent (Attorney General Brief at 41)

i. <u>Comparison Group</u>

The Attorney General contends that the comparison group overstates the costs of common equity for Fitchburg because it is a broad group of vertically integrated electric companies maintaining generation as well as non-utility subsidiaries (Attorney General Brief at 31). The Attorney General contends that, while vertically integrated electric companies with generation and transmission operations may have certain risks associated with the problems in the California market, ⁴¹ deregulation, and overall increased competition, Fitchburg's standing as a distribution-only company insulates it from those risks (id. at 30-31). The Attorney General argues that the Department has previously recognized the lower risk of the stand-alone electric distribution business and, thus, the lower required return versus companies with generation and non-utility subsidiaries (id. at 31, citing Massachusetts Electric Company, D.P.U. 95-40, at 95-96 (1995)).

Noting that investors consider the financial and business risks associated with a potential investment, the Attorney General maintains that the Company has provided an inadequate financial risk analysis, and no business risk analysis, for the comparison group (Attorney General Reply Brief at 17-18). Therefore, the Attorney General argues that there is no basis for finding that Fitchburg's financial or investment risk is greater than that of the companies in the comparison group (id. at 18).

ii. Constant Growth DCF

The Attorney General contends that the Company's short-run growth rate forecasts appear to be excessive in terms of long-run sustainable growth in electric utility stocks and, therefore, do not represent long-term expectations (Attorney General Brief at 33; Attorney

None of the comparison group is a California utility (Exh. AG 6-13).

General Reply Brief at 19). The Attorney General maintains that, in comparison to the recent Gross Domestic Product ("GDP") growth rate of approximately 5.5 percent, and the average ten-year historical growth rate in earnings per share, dividends per share, and book value per share of between 1.1 percent to 1.7 percent, the Company's average growth estimate of 6.36 percent is unsustainable (Attorney General Brief at 33, citing Exhs. AG 6-3; AG 6-13, AG 6-14; Attorney General Reply Brief at 19-20). The Attorney General maintains that any biases in these historic growth rates associated with restructuring and divestitures have been significantly offset by the benefits of mergers and acquisitions, along with the development of a competitive generation market (Attorney General Reply Brief at 20). Therefore, the Attorney General recommends that the Department give little weight to the results of the Company's Constant DCF analysis (Attorney General Brief at 33).

iii. Non-constant Growth Terminal Value DCF

The Attorney General states that the Company's Market DCF, which relies heavily on data from Value Line, is inconsistent with Value Line's own assumption that P/E ratios vary over time (Attorney General Brief at 34, citing Exh. AG 6-13; Tr. 2, at 188-189). According to the Attorney General, the only way to correctly use Value Line's forecasted dividends, earnings, and price per share is to use the forecast price (e.g., earnings ratio already provided by Value Line for the period 2003 to 2006) and multiply that ratio by Value Line's earnings per share estimate for the same period (Attorney General Brief at 34, citing Exh. AG-6-13). The Attorney General contends that, because the Company's analysis relied on selective growth rate estimates, the results are inflated by over 140 basis points versus a ROE calculated using Value Line's P/E projections (id. comparing Exh. AG-6-15, at 3 with RR-AG-4). The Attorney General maintains that Value Line's projected P/E ratios, unlike current ratios, are

logically and internally consistent, and, therefore, should be used, instead of the Company's analysis (id. at 34, citing RR-AG-4).

iv. <u>Non-constant Growth Transition DCF</u>

The Attorney General argues that the Company provides no support for its "inventive creation" of long-run growth rates for the comparison group, and that Fitchburg's Competitive DCF approach has no basis in theory or practice (id. at 35). The Attorney General argues that, because an electric utility cannot sustain a level of growth higher than the nominal growth rate in the economy (with an average of 5.57 percent over the past 11 years), the utility's long-run growth rates should conservatively be capped at 5.57 percent (id. at 36, citing Tr. 2, at 167-168). The Attorney General states that after the Company re-ran its Competition DCF analysis for the comparison group using a long-run growth rate of 5.57 percent after the first ten years, the calculated ROE fell to 10.8 percent (id. citing RR-AG-5). The Attorney General contends that this modification to the Competition DCF analysis provides a basis that is more logical and internally consistent and so more suitable for determining the cost of equity for an electric company (id. at 36).

v. <u>Risk Premium Analysis</u>

The Attorney General argues that flaws in the Company's risk premium analysis render the results meaningless and inappropriate for determining Fitchburg's ROE (id. at 37). The Attorney General argues that although Moody's Average Public Utility Bond Yield ("Moody's") includes some electric distribution companies, it also includes gas and telephone companies (id. citing Exh. AG 6-1). Therefore, the Attorney General urges the Department to reject the Company's risk premium analysis, because the debt component used to determine the

debt instrument is not representative of electric distribution utilities (id. at 37, citing D.P.U. 1350, at 169 (1983)).

The Attorney General further challenges the ability of the Company's risk premium analysis to portray a true representation or measure of investors' expectations (<u>id.</u> at 38). The Attorney General states that the Company's use of ROE decisions determined by state utility commissions shows that its analysis is not market-based (<u>id.</u>). The Attorney General argues that, because the commissions' decisions are based on evidence that can be at least six months old, the commissions' determinations will lag behind current market information and the yield on the debt used to determine the equity risk premium (<u>id.</u>). Thus, the Attorney General maintains that the comparison between administratively-ordered returns and bond yields is meaningless (<u>id.</u>). Based on the above, he argues that the Company's risk premium analysis should be rejected by the Department (<u>id.</u> at 37-38).

Concerning the risk premium studies provided by Ibbotson and Harris-Marston, the Attorney General argues that the Department has repeatedly rejected these types of historical data as bases for determining a company's ROE (id. at 38, citing D.P.U. 96-50 (Phase I) at 128 (1996); D.P.U. 95-40, at 97 (1995); D.P.U. 93-60, at 262 (1993); Bay State Gas Company, D.P.U. 92-111, at 256-257 (1992)). Moreover, the Attorney General argues that the reliance on the S&P 500 in both studies biases the results upwards (id. at 39). The Attorney General states that, to the extent that the Department may give the Ibbotson study any weight, the analysis should be based on a capital asset pricing model ("CAPM") as recommended by the study' authors (id. at 39, citing Tr. 2, at 212-218). Applying a CAPM analysis to the record evidence, the Attorney General concludes that the Company's required ROE would fall between 7.91 percent and 10.66 percent (id. at 39-40).

b. <u>The Company</u>

Based on its quantitative results of its analyses and its assessment of current market, industry, and Company-specific conditions, Fitchburg concludes that an 11.5 percent ROE is reasonable (Exh. FGE-4, at 3, 29). Fitchburg argues that the Attorney General has failed to establish a sufficient case on his allegations of excessive returns (Fitchburg Reply Brief at 24). The Company states that the Attorney General's failure to sponsor an expert witness on the cost of equity is a fatal flaw in this Section 93 action, which can not be salvaged by arguments of the Attorney General that are unsupported by the evidence (id. at 5, 23-25, citing Salisbury Water Supply, 344 Mass. 72; Deacon Transportation, Inc. v. D.P.U., 388 Mass. 390, 394 (1983)). Therefore, the Company argues that the Department should, at the very least, give no weight to the Attorney General's cost of equity proposal and renews its call to dismiss the Attorney General's claims for failure to establish a case (id. at 25).

i. <u>Comparison Group</u>

Fitchburg maintains that investors are keenly aware of the electric industry's transition to competition at both the wholesale and retail levels, which has engendered concerns and uncertainties relative to anticipated industry returns (Fitchburg Brief at 43, citing Exh. FGE-4, at 33; Tr. 2, at 156, 197-199). The Company contends that it faces various levels of uncertainty as a result of its transition to competition, both through the recovery of transition costs and maintaining the value of its franchised distribution service territory (id. at 44). Fitchburg maintains that investor trends and perceptions, including a "flight to safety" following the Asian financial crisis in 1998, and decline in utility stock prices after the California energy crisis, have a bearing on investor perceptions of the Company's relative risk (Fitchburg Reply Brief at 25, citing Exh. FGE-4, at 19-22). The Company contends that it intentionally selected a comparison group with a lower risk profile than itself in order to produce a conservative estimate of the required ROE (id. at 26).

The Company argues that the Department has not made any broad findings that restructured electric distribution companies face less risk than utilities with generation and non-utility subsidiaries (id. at 27). The Company states that in D.P.U. 95-40 the Department faulted Massachusetts Electric Company's ("MECo") comparison group for its inclusion of companies with more business risk, based on such factors as the ownership of non-utility subsidiaries, generation responsibility and a non-diversified fuel mix (id. citing D.P.U. 95-40, at 96). Moreover, the Company notes that it, like the California electric companies facing bankruptcy, is a distribution subsidiary in a restructured holding company system, thus negating any claim that distribution-only operations have less risk than vertically integrated systems (id. at 25-26).

ii. Constant Growth DCF

The Company defends its use of a 6.36 percent growth rate, arguing that the Attorney General provided no evidence or explanation for using the GDP as an appropriate proxy for an investor expected growth rate, or for his selection of a ten-year average growth rate (id. at 28). The Company claims that the Attorney General's average ten-year historical growth rate of 1.1 percent to 1.7 percent is unsupported (id. at 28-29). Finally, Fitchburg argues that it appropriately used a variety of quantitative factors to estimate investor-expected growth (id. at 28, citing D.T.E. 98-51, at 120).

iii. Non-constant Growth Terminal Value DCF

The Company disagrees with the Attorney General's proposed modifications to its Market DCF analysis, arguing that the Attorney General's calculations produce a skewed result by ignoring current P/E ratios to determine investor's current expectations (id. at 29, citing Tr. 2, at 189). According to the Company, the Market DCF analysis estimates what investors would expect to earn if they purchased a stock at today's market price, held it for a number of years, and then sold it (id. at 29). The Company states that the Attorney General's proposed use of the Value Line P/E forecasts is misplaced because it represents an estimate into the future and, thereby, produces an inaccurate estimate of Fitchburg's current cost of equity (id. at 29-30).

iv. Non-constant Growth Transitional DCF

The Company disagrees with the Attorney General's suggestion that the Department accept a cost of equity estimate of 10.8 percent under a revised Competition DCF analysis (id. at 30). The Company states that the Attorney General provides no evidentiary support for the use of a 5.57 percent growth rate (id.).

v. <u>Risk Premium Analysis</u>

Fitchburg argues that the Attorney General raised the same criticisms regarding its risk premium analysis in the Company's last gas base rate case, D.T.E. 98-51 (id. at 31). The Company argues that the criticisms are "extra-record rebuttal" and need no detailed response (id.). Regarding the Attorney General's criticism of the Company's reliance of data from Moody's, Fitchburg states that there is no evidence that these are not representative of electric distribution utilities (id.). Similarly, the Company argues that the Attorney General's criticism of the ROEs authorized by public utility commissions must fail, because these approved rates of return indicate what other comparable companies have had an opportunity to earn and thus are reflective of the market for a just and reasonable return (id.).

4. <u>Analysis and Findings</u>

According to long-standing precedent, a company's allowed ROE should preserve the company's financial integrity, allow it to attract capital on reasonable terms, and be comparable to returns on investments on comparable risk. <u>Bluefield Water Works and Improvement</u>

<u>Company v. Public Service Commission of West Virginia</u>, 262 U.S. 679 (1923) ("<u>Bluefield</u>");

<u>Federal Power Commission v. Hope Natural Gas Company</u>, 320 U.S. 591 (1942) ("<u>Hope</u>").

a. <u>Comparison Group</u>

Companies often use comparison groups, or groups of similar distribution companies, as a basis of comparison in order to evaluate their cost of equity analyses. The Department may accept the use of a comparison group when a company's stock is not publicly traded. D.P.U. 92-78, at 95-96 (1992). Companies considered for the comparison group must have common stock that is publicly traded and must be of generally similar investment risk. D.P.U. 1300, at 97 (1983). Because of the range of operating conditions present in the electric industry, including those raised by restructuring, it is impossible to find a group of utilities that match the subject company in every way. Therefore, an analysis must employ valid criteria to determine which utilities will be used in the comparison group, and provide sufficient financial and operating data to allow the Department to discern the investment risk of the subject company versus the selected comparison group. D.P.U. 94-50, at 450; D.P.U. 92-250, at 141; D.P.U. 87-59, at 68; D.P.U. 1100, at 135-136. There may be science, but there is also some art involved; and acknowledging as much does not diminish the value of the comparative exercise when properly conducted.

The Department has evaluated the Company's selection criteria as provided in Exhibits AG 6-13 and AG 6-14, and finds that Fitchburg has applied a reasonable set of criteria in selecting the comparison group. The Company's use of a sample of widely-held, publicly traded electric utility companies rated single-A or higher provides a broad framework on which the specific financial and operating risk characteristics can then be evaluated. See D.T.E. 98-51, at 109 (1998). The Company has also provided the Department with sufficient financial and operating data in order to allow us to consider any differences between the investment risks of the comparison group and Fitchburg (e.g., information concerning fuel mix,

customer mix, and cash flow). D.P.U. 94-50, at 450; D.P.U. 92-250, at 141; D.P.U. 87-59, at 69 (1987).

The Company's comparison group includes a mix of holding companies along with companies with unregulated generation, marketing, and gas distribution operations (Exhs. AG 6-13; AG 6-14). Some mixture is unavoidable in light of the current structure of the electric industry. The presence of these varied activities adds to the inherent complications of any comparative risk analysis. See D.T.E. 98-51, at 109 (1998); D.P.U. 87-59, at 68; <u>Massachusetts Electric Company</u>, D.P.U. 800, at 47 (1982). We disagree with the Attorney General's contention that the inclusion of vertically integrated electric utilities in the comparison group, in and of itself, justifies a finding of lower risk for a distribution-only company such as Fitchburg. In D.P.U. 95-40, the Department rejected MECo's comparison group because the financial characteristics and corporate structures of the companies in that comparison group bore little resemblance to MECo. <u>Id.</u> at 96. In doing so, the Department did not make a broad finding that restructured electric distribution companies had less risk than utilities with generation and non-utility subsidiaries. The Attorney General mischaracterizes D.P.U. 95-40. Rather, the Department stated that the specific comparison group "includes companies with more business risk than MECo" and that consequently found that the group's comparability to MECo for purposes of comparing risk and growth factors was questionable. <u>Id</u>.

In D.T.E. 98-51, the Department concluded that the comparison group chosen by the Company bore little resemblance to its own financial and corporate structure. D.T.E. 98-51, at 109 (1998). As a result, we accorded little weight to the Company's analyses that relied on the proposed barometer group as a basis for comparison. <u>Id.</u> at 110. The Company has addressed

these criticisms in the present investigation and has included utilities in its comparison group that: (1) are much larger than Fitchburg; (2) have a higher equity component in their capital structures; (3) have favorable bond ratings; and (4) have more than 75 percent of their revenues derived from electric operations (Exhs. FGE-4, at 23; AG 6-10; Tr. 2, at 171-172). The group is not inapt and certainly does not skew the argument in Fitchburg's favor in a way that discredits the exercise. Comparison always has its limitations, but that does not invalidate the practice. As a result, the Department will accord appropriate weight to Fitchburg's proposed comparison group as a basis for evaluating an appropriate ROE.

b. Constant Growth DCF

The Company's Constant DCF model assumes that the value of an asset is equal to the present value of future expected cash flows discounted at the appropriate risk-adjusted rate of return. Because the dividend yield and growth rate components of this risk-adjusted rate of return are variables that measure investors' expectations of future stock performance, there will always be potential problems and limitations in estimating the appropriate values of these two variables.

Regarding the dividend yield component of the Constant DCF model, the Company relied on a three-month average stock price (Exh. FGE-4, at 24-25, Sch. 3). However, as we have found previously, three-month average stock price is an insufficient basis on which to gauge investor expectations, and therefore does not provide an accurate representation of the current financial marketplace. D.T.E. 98-51, at 121 (1998). Accordingly, the Department

finds that the Company's proposed dividend yield tends to overstate the Company's required ROE. 42

Regarding the growth rate component of the Constant DCF model, the Company relied in part on growth rate estimates from Value Line and Zacks (Exhs. FGE-5, at 2; AG 6-15). The Attorney General has contested the reliability of these forecasts in relation to the GDP growth rate, as well as earnings, dividends, and book value growth rates. While the Attorney General has not sufficiently supported his application of the GDP growth rate in determining an appropriate ROE, the significant difference among the investment forecasts and growth rates in earnings, dividends, and book value leads use to conclude that the Company has overemphasized investment forecasts over other quantitative factors in its ROE calculation (Exhs. AG 6-13; AG 6-14; see D.P.U. 98-51, at 120 (1998); D.P.U. 93-60, at 251 (1993); D.P.U. 92-250, at 147 (1993)).

Based on the above considerations, the Department finds that the Constant DCF analysis overstates the required return on common equity for Fitchburg.

c. <u>Non-constant Growth Terminal Value DCF</u>

As we found above, the three-month average stock price used to calculate the comparison companies' forward-looking dividend represents too short a period to represent current market experience accurately. Concerning the derivation of the growth rate, the Company derived a terminal price based on the current P/E ratio, and applied to the forecast earnings per share (Exh. AG 6-15, at 3). While this approach may be reasonable if P/E ratios

The Department has previously accepted the use of six-month data to recognize more current market experience. D.T.E. 98-51, at 121 (1998); D.P.U. 94-50, at 459 (1995); D.P.U. 92-78, at 112 (1992).

remain constant during the investor's holding period, the Company's assumption that P/E ratios will remain constant is belied by Value Line's dividends, earnings, and price per share forecasts (Exh. AG 6-13; Tr. 2, at 189). The Company's assumption of constant P/E ratios is tenuous at best. The shortcomings of the Company's analysis is evidenced by the comparison group's variability in P/E ratios for the period 1985 through 2000 (Exh. AG 6-13; AG 6-14). Therefore, Fitchburg's assumptions underlying the derivation of the growth rate are not valid (Exhs. AG 6-13; AG 6-14).

Based on the above considerations, the Department finds that the Market DCF analysis overstates the required return on common equity for Fitchburg. Accordingly, the Department places limited weight on the Company's Market DCF analysis.

d. Non-Constant Growth Transitional DCF

Again, this model relies on an insufficient three-month average stock price to calculate the comparison companies' forward-looking dividends. With regard to the Company's proposed growth rate, the effective growth rate calculation appears to be circular in that it requires solving for the required ROE before the growth rate can be determined (Exh. FGE-5, at 4, RR-AG-3). This problem is illustrated by the susceptibility of the transition period growth rates to fluctuations dependent upon the selected long-term growth rate (See RR-AG-4). The mix of forecast short-term earnings with long-term S&P 500 estimates has no basis in theory or application. Moreover, Fitchburg's own witness admits that the Competition DCF model was not supported by any known theory, and that he placed less confidence in this model because the transitional period to competition is nearing completion (Tr. 2, at 198-200). The Competition DCF model simply takes the arithmetic average of the S&P 500 index as a proxy

for the deregulated generation market and a regulated distribution operation, which Fitchburg's own witness considers to be a "naive" approach (<u>id.</u> at 198).

Based on these considerations of the inadequacies of the evidence on this point, the Department finds that the Competition DCF analysis lacks a credible basis and is not a realistic method to determine Fitchburg's ROE. Therefore, the Department will place no weight on the results of the Competition DCF analysis when determining Fitchburg's required ROE.

e. <u>Risk Premium Analysis</u>

The Company's risk premium approach, which defines the cost of equity capital to be equal to the interest on long-term debt plus an equity risk premium, has been rejected by the Department in previous rate proceedings. The Department has found that a risk premium analysis overstates the amount of company-specific risk and, therefore, overstates the cost of equity. D.P.U. 96-50 (Phase I) at 128 (1996); D.P.U. 93-60, at 261 (1993); D.P.U. 92-111, at 265 (1992); D.P.U. 90-121, at 171 (1990). In addition, the Department has rejected specific aspects of the risk premium analysis, including use of data with large statistical variances that make the results of the analysis of little practical value. D.P.U. 92-111, at 265 (1992); D.P.U. 90-121, at 172 (1990); D.P.U. 86-33-G at 364 (1989). Despite these concerns, the risk premium analysis can provide a supplemental approach to other ROE models, thereby ensuring consistency with other capital market data in the Department's investigation of the appropriate ROE. Consequently, the Department accords the risk premium approach weight only the extent that it is corroborative of results of other selected methods. See D.P.U. 90-121, at 171 (1990); D.P.U. 88-135/151, at 123-125 (1989); D.P.U. 88-67 (Phase I) at 182-184 (1988).

Regarding the Company's reliance on Moody's to select A-rated and BBB-rated utility bonds for the long-term debt rate (Exhs. FGE-4, Sch. 5; AG 6-1; AG 6-8), although these data

do include data for electric distribution companies, they also include the bond yields of gas and telephone utilities (Exh. AG 6-1). Therefore, the Company's debt component is not sufficiently comparable to either the comparison group or Fitchburg to provide an accurate measure of the required ROE. D.P.U. 1350, at 169 (1983). In this instance, limiting a long-term debt analysis to those companies in the comparison group would produce more reliable results than use of the entire range of companies reported in Moody's. See D.P.U. 800, at 50.

To develop the risk premium, Fitchburg compared historic long-term debt rates for the period 1980 through 2000 with ROEs granted by other state public utility commissions for that same period (Exh. FGE-4, at 26). The Company's analysis moves beyond a mere averaging of the differential through its use of regression analysis to establish a statistical correlation between debt rates and allowed ROEs over time (Exh. FGE-4, at 26-27, Sch. 5, at 2). Although the Attorney General challenges the reliability of authorized ROEs as a measure of the required risk premium, the Department finds that ROEs authorized by other regulatory agencies are, by definition, indicative of the return that comparable companies are allowed an opportunity to earn. However, we do recognize that the regulatory lag inherent in the ratemaking process will cause the authorized ROEs to lag somewhat behind then-current market returns, thereby affecting the reliability of the risk premium analysis.

Concerning the Ibbotson Study and Harris-Marston Study, the Company relied on these as a check on the results of its risk premium analysis. Both the Ibbotson Study and the Harris-Marston Study rely on the S&P 500 in their risk premium calculations (Tr. 2, at 211, 219). The Department has recognized that because the companies comprised by the S&P 500 are generally considered to have different investment risks than utility companies, use

of the Ibbotson Study or Harris-Marston Study tends to overstate the required ROE. <u>See</u>

<u>Boston Edison Company</u>, D.P.U. 906, at 103 (1982). Moreover, the Ibbotson Study presumes the use of the CAPM to determine a utility's ROE (Tr. 2, at 214). Because the Company has not presented a CAPM analysis in this proceeding, the results of the Ibbotson Study carry little weight in determining the appropriate ROE for Fitchburg.

Based on the above analysis, the Department finds that the risk premium analysis does not accurately measure the required return on common equity for Fitchburg. While the Department has considered the risk premium analysis as a supplement to assist us in evaluating the other ROE models, we place limited weight on the results of the Company's risk premium analysis.

f. <u>Attorney General Proposal</u>

Fitchburg argues that the Attorney General's approach is an inadequate substitute for expert testimony, and in support cites <u>Salisbury Water Supply</u>, 344 Mass. 721 (1963) and <u>Deacon Transportation</u>, Inc. v. D.P.U., 388 Mass. 390, 394 (1983). While the Company is correct that mere challenges to its testimony would not, in and of itself, create substantial evidence, it overstates the matter. The affirmative evidence presented by the Attorney General may not be comprehensive, but it does have a claim to credence. The Attorney General, through the testimony of Mr. Effron and evidence, has offered affirmative evidence to support his proposed ROE. The Attorney General proposed as part of his direct case a particular ROE, and offered direct testimony, exhibits, and other evidence to support his contention, as well as challenging the Company's analysis through cross-examination.

The Attorney General initially proposed the use of an ROE of 10.58 percent, equal to the carrying charges associated with the Company's transition charges. The ROE component

of transition charges is set by statute, using an electric distribution company's most recently adjudicated ROE with adjustments based on the level of transition charges. G.L. c. 164, § 1G(b)(3). There is no basis for concluding that the carrying charges associated with transition charges represents a reasonable ROE for the Company's distribution operation. With respect to the Attorney General's proposed ROE of 9.9, we have considered the Attorney General's criticisms of the Company's analyses where appropriate in determining how much weight to place on each individual analyses. However, as we discuss below, the Attorney General's recommended 9.9 percent ROE understates Fitchburg's required ROE.

g. <u>Conclusion</u>

In order to determine the appropriate allowed rate of return for Fitchburg, the

Department must review all of the evidence in this case and the arguments presented by the

parties. We must ensure that the allowed rate of return will preserve Fitchburg's financial
integrity, will allow it to attract capital on reasonable terms, and will be comparable to the
earnings of companies of similar risk. In performing our review, we often rely on the results
of empirical analyses to help guide our determination of an appropriate rate of return.

However, the use of empirical analysis in this context is not an exact science. A number of
judgments are required in conducting a model-based ROE analysis. The first layer of judgment
involves the appropriate economic theory underlying each model. Next, we must choose which
of several competing models best represents market considerations. In addition, there is
significant qualitative judgment involved in the selection of appropriate data to apply to the
chosen model. Finally, we must apply considerable judgment and agency expertise to
determine the appropriate use of the empirical results. Each level of judgment to be made
contains possibility of inherent bias and other limitations. Therefore, while the results of

analytical models are useful, the Department must ultimately apply its own judgment to the evidence to determine an appropriate rate of return. Our task is not a mechanical or model-driven exercise.

In our evaluation of the Company's analyses, as discussed above, we found that two of the three DCF models (Market DCF and Constant DCF), as applied to this investigation, had certain merit and, therefore, stated that we would grant them appropriate weight. We further stated, however, that each model, as applied, tended to over-estimate the Company's required rate of return. A third DCF model (Competition DCF) was rejected as it has no foundation in sound theory or practice. With respect to the risk premium analyses, we also found that this method, on its own, tends to over-estimate a required rate of return.

Based on a review of the evidence presented in this case, the arguments of the parties, and the considerations set forth above, the Department finds that an allowed rate of return on common equity of 10.5 percent is within a reasonable range of rates that satisfies the standards set forth in by the Supreme Court in <u>Bluefield</u> and <u>Hope</u>. In making this finding the Department has considered both qualitative and quantitative aspects of the Company's alternative methods for determining its proposed rate of return on equity, as well as the arguments of the Attorney General. We note that our findings on the appropriate rate of return are consistent with the low range of reasonable returns on equity provided by the Company (10.5 percent through 12.5 percent) and reflect our reasoned judgment that such rate of return preserves the Company's financial integrity and allows it to compete for capital in the financial market with firms of comparable risk.

VIII. <u>CONCLUSION</u>

Based on the foregoing analysis, the Department concludes that Fitchburg's current distribution base rates produce excess revenue of \$1,170,426 (Schedules 1 through 9, attached). Therefore, the Department finds that the Company's current rates are neither just nor reasonable.

In the Department's Scope Order at 6-7, we found that it was not necessary to review the Company's cost allocation or rate structure to determine whether Fitchburg's distribution rates remained just and reasonable. A utility's revenue requirement is determined independently from the allocation of its revenue requirement among the utility's rate classes.

Id., citing Colonial Gas Company, D.P.U. 86-27-A at 9 (1988); Massachusetts Electric

Company, D.P.U. 85-146, at 7 (1986). Therefore, the Department did not require an allocated cost of service study ("COSS") as part of this Section 93 earnings investigation. Id. at 7. In doing so, the Department did not preclude consideration of an allocated COSS were one to be submitted by either the Company or the Attorney General. Id. Neither the Company nor the Attorney General submitted an allocated COSS as part of this proceeding.

The absence of an allocated COSS either in a Section 93 proceeding or in a Section 94 investigation does not prevent the allocation of a utility's established revenue requirement among the utility's respective rate classes. In the absence of an approved COSS, the Department has allocated revenue increases in Section 94 proceedings on both an equal percentage basis over then-existing rates and an equal cents per unit (i.e., kWh, cubic feet, or gallons) applied to then-existing rates. D.P.U. 92-101, at 68 (1992); D.P.U. 84-94, at 79 (1984); Western Massachusetts Electric Company, D.P.U. 957, at 97 (1982). Section 93

grants the Department broad authority⁴³ to order any reduction or change in the price or prices of gas and electricity, upon a finding of excessive rates. Therefore, the Department has considerable discretion as to the means to eliminate a revenue surplus, including across-the-board rate reductions or selective rate adjustments determined by the record evidence. D.P.U. 8390, at 6 (1949); D.P.U. 5244, at 2-3 (1936).

Fitchburg's distribution rates were established in 1985, with a revenue-neutral rate redesign approved in Fitchburg Gas and Electric Light Company. D.P.U. 90-122 (1990), and two across-the-board rate decreases in 1987 and 1993. Although the Company submitted a COSS based on 1995 data as part of its rate unbundling compliance filing in D.P.U. 97-44 (1997) and its restructuring plan in D.P.U. 97-115/98-120, the COSS was used only to determine the total amount actually then-attributed to rate categories, including generation, transmission, and distribution. D.T.E. 97-115/98-120, at 35 (1998). Considering the length of time that has elapsed since the Company's cost allocation and rate design were last examined and the requirements of G.L. c. 164, § 1B(b) that customers receive an inflation-adjusted rate decrease of 15 percent over rates in effect as of August 1997, the imposition of selective rate adjustments will only serve to distort the Company's rate design, and may affect Fitchburg's future ability to remain in compliance with G.L. c. 164, § 1B(b). Therefore, the Company is directed to allocate the revenue decrease to its rate classes by means of an equal percentage decrease to its distribution base rates. D.P.U. 87-21-A at 20-21 (1987).

See n.9, above.

A decrease of \$720,205 implemented pursuant to D.P.U. 87-21-A (1987), with a second, voluntary, decrease of \$243,536 implemented pursuant to <u>Fitchburg Gas and Electric Light Company</u>, D.P.U. 93-168-A (1993). Neither of these cases involved an examination of the Company's cost allocation or rate design.

IX. SCHEDULES

The Department's revenue requirement schedules are appended as Attachment 1 to this Order. The first column presents the Company's unadjusted test year revenue requirements, with two adjustments intended to impute an associated return requirement and associated income taxes on distribution operations. The Attorney General's computation of his proposed revenue deficiency is presented in the second column, followed in the third column by Fitchburg's computation of its earnings calculation. The fourth column presents the Department's adjustments to the Company's test year revenues and expenses. The sum of the test year expense and corresponding Department adjustment, representing the expense level being included in the Company's distribution rates, is provided in the fifth column.

X. ORDER

Accordingly, after notice, hearing, and consideration, it is hereby

ORDERED: That Fitchburg Gas and Electric Light Company shall file new schedules of rates and charges designed to produce a decrease in total distribution revenues of \$1,170,426 over rates currently in effect within five business days from the date of this Order; and it is

<u>FURTHER ORDERED</u>: That Fitchburg Gas and Electric Light Company shall apply this rate decrease on an equal percentage basis across each of its distribution base rate components; and it is

<u>FURTHER ORDERED</u>: That Fitchburg Gas and Electric Light Company shall comply with all other Orders and directives contained herein; and it is

The Company's test year operating data do not segregate a return requirement or associated income taxes by generation, transmission, or distribution functions. Hence, the Department has used its standard ratemaking practice to impute both the return and income tax expense.

<u>FURTHER ORDERED</u>: That the new rates shall apply to electricity consumed on or after the date of this Order, but unless otherwise ordered by the Department, shall not become effective earlier than seven (7) days after they are filed with supporting data demonstrating that such rates comply with this Order.

By Order of the Department,
James Connelly, Chairman
W. Robert Keating, Commissioner
Paul B. Vasington, Commissioner
Eugene J. Sullivan, Jr., Commissioner
Deirdre K. Manning, Commissioner

Appeal as to matters of law from any final decision, order or ruling of the Commission may be taken to the Supreme Judicial Court by an aggrieved party in interest by the filing of a written petition praying that the Order of the Commission be modified or set aside in whole or in part.

Such petition for appeal shall be filed with the Secretary of the Commission within twenty days after the date of service of the decision, order or ruling of the Commission, or within such further time as the Commission may allow upon request filed prior to the expiration of twenty days after the date of service of the decision, order or ruling. Within ten days after such petition has been filed, the appealing party shall enter the appeal in the Supreme Judicial Court sitting in Suffolk County by filing a copy thereof with the Clerk of said Court. (Sec. 5, Chapter 25, G.L. Ter. Ed., as most recently amended by Chapter 485 of the Acts of 1971).